United States Department of the Interior

FISH AND WILDLIFE SERVICE

Klamath River Fishery Resource Office
P.O. Box 1006
Yreka, CA 96097-1006

December 4, 1991

Memorandum

TO: Klamath River Basin Fisheries Task Force

FROM: Project Leader, Klamath River FRO
Yreka, California

SUBJECT: Draft minutes of the Task Force meeting held November 6-7, 1991.

Attached for your review are minutes of the subject meeting held in Brookings, Oregon.

Ron Iverson

Ronald A. Iverson

Attachments

cc: TF Technical Work Group
TF Interested Parties
Management Council
MC Tech Team

Minutes from the Meeting of the
Klamath River Basin Fisheries Task Force
November 6-7, 1991, Brookings, Oregon.

November 6:

Task Force members present: Bill Shake, Nat Bingham, Rod McInnis, Keith Wilkinson, Mel Odemar, Walt Lara, Mike Orcutt, Mat Leffler, Mike Bryan (for George Thackeray), Dick Sumner, Leaf Hillman, Barbara Holder, Mitch Farro.

(Shake): Called meeting to order. Encouraged public comments. Recognized Matthew Leffler, representing Trinity County, and Mike Bryan sitting in for George Thackeray.

Agenda Item: Administrative issues.

Meeting agenda (Attachment 2) approved.

Minutes from June 1991 meeting approved as printed.

Agenda Item: Program Evaluation and Planning.

Report on recent steps in planning the Columbia River Basin Fish and Wildlife Program (Shake):

(Shake): A brief overview of what has occurred over the last few years in the Columbia River basin. Over two years ago the Northwest Power Planning Council asked the agencies and tribes to develop an integrated Fish and Wildlife program in the Columbia River basin. Over 3 million dollars were allocated through the Bonneville Fish and Wildlife department for that planning effort. Over 33 subbasin plans were developed using technical expertise from local areas. It was a lengthy process which took more time than originally planned. About 1 year ago, they completed the subbasin plans, then began to integrate those subbasin plans into one overall plan. This plan was completed in the spring of 1991. The plan, the Integrated System Plan, was presented to the Power Planning Council for adoption. The purpose was to provide direction for the Council's fish and wildlife program. Anything done had to be in the subbasin and integrated system plan. That plan was approved this summer.

The status of the Columbia River Endangered Species issue is this: Five stocks of salmon were petitioned for listing by conservation organizations: Upper Snake River fall (1), spring (2) and summer (3) chinook; Snake River sockeye (4), and lower Columbia River coho (5). The National Marine Fisheries Service (NMFS) is reviewing the petitions. They found the Snake River sockeye to be a recognizable stock and is proposed by NMFS for listing. Lower Columbia River coho were found not to be a distinct natural stock, therefore they do not propose to list that stock. NMFS has received public comment on the status of those five stocks, and NMFS is in the process of making a final decision. The process must be completed by June, 1992, for chinook stocks, and April, 1992, for sockeye. It takes one year to complete the process. Senator Hatfield, of Oregon, asked all entities to sit at a salmon summit, to develop a plan to protect and restore these stocks as an alternative to the Endangered Species Act process. That process went on for one year with no concrete plan of

action resulting. A variety of interests were involved in that process, many agencies, users, etc. As a result of the salmon summit's failure, the Northwest Power Planning Council began a process to amend the fish and wildlife program to provide for protection and restoration of the endangered species. They requested proposals for amendments. They received many, and put the amendment draft out four months ago. The public hearing process occurred, and will result in a formal amendment expected out in November, 1991. It's critical to get information for NMFS to complete their decision making process. We don't know if the Power Planning Council will be able to get it done, nor how beneficial it will be for fish. If the stocks are listed, NMFS will be required to put together a recovery team to consider all the information available, and to develop a restoration plan.

(Wilkinson): I've got some harvest figures that show the number of Snake River Fish taken in our ocean fishery. In 1990, Oregon coastal fisheries accounted for 87 Snake River fall chinook. The total for all states was 178 Snake River chinook. This could possibly result in harvest constraints in the future.

Q: Are your figures a result of expanded coded wire tag (CWT) data?
(Wilkinson): I don't know.

(McInnis): That information is being worked up, and will be released later.

Agenda Item: Status of 1992 work plan (Odemar). (see Attachment 3)

(Odemar): The grand total is $227,557.00 allocated to the CDFG funded projects. Three projects on this list received high scores in the Task Force ranking process, but were not funded by the Department. Project FR-4, a proposal by the Orleans Rod and Gun Club, was rejected because Prop. 99 funds require that fish rearing projects be associated with habitat restoration. Project HR-19, the proposal by Siskiyou RCD, had to do with cattle exclusion fencing. Our evaluation was that fencing would not fix the problem, so we did not fund it. Project HR-8, proposed by the Klamath National Forest, was for riparian restoration on Indian Creek. The Department felt that the planting was to occur in areas where many trees exist, and that it would take a long time before benefits would be realized. Project FR-10 wasn't funded because the Department ran out of money. The contracts are in the process of being written.

The Prop. 70 committee approved funding some California Conservation Corps (CCC) work in the basin, but were not recommended for funding by the Task Force.

Q: What was the total funding amount?
(Odemar): $227,557 (On page four). One of the last projects was not funded because we ran out of money ($240,000 was approved).

Q: So about $20,000 should be taken off this list?
(Odemar): About $18,000.

(Bingham): All private fish incubation and rearing programs in California have been put on notice that they must be associated with habitat improvement projects to receive state money.

(Odemar): This year there won't be eggs available for the mid Klamath River pond program.

(Bingham): It would be useful to identify what constitutes habitat improvement. If somebody else is doing habitat work, does it count? I'd like to ask CDFG to recognize restoration work done by others.

*** Action: Place the CDFG ruling on other habitat work on next meeting's agenda.

Agenda Item: Evaluation Report (Alcorn)

(Alcorn): Part of the task that I was assigned was a result of policies in the Long-Range Plan that state we should provide an annual assessment of where we are in this restoration process. We hope our report covers the bulk of what is being done in the basin. This report reflects funding recommendations by this Task Force from Fiscal Year 1989 through FY1992. I want to emphasize that this is a draft and that we feel more is being done, but we're probably not aware of it. We hope to get input from you folks for things being done by the organizations which you represent. When this report is finalized, we hope to send it out to our interested parties. It is appropriate that those interested in our restoration program see what this Task Force is doing with their monies and how we are incorporating our efforts with other agencies' efforts.

As we were going through each of the policies, a lists of tasks fell out in an established pattern. To get these policies implemented, we felt that four groups would be instrumental:

The Task Force body as a whole.
The Klamath River Fishery Resource Office (KRFRO) staff.
The Technical Work group.
The agencies represented by the Task Force.

[Alcorn then presented his report using overhead projector slides and a handout, See Attachments 4, 5, and 6.]

(Alcorn): Because program administration is such a large budget item, I've broken it out so you can see where the money is being spent. The 16% for KRFRO operations covers rent, utilities, and vehicle operation. The FWS Operations is what the Regional Office takes off for overhead. The 15% Planning costs include costs for development of the long-range plan and paying Kier Associates. Advisory committees expenses are 12%, which covers the costs involved in putting these meetings on and travel related expenses.

(Odemar): Where does the Klamath Fishery Management Council fit into this? The staff spends considerable time working for the Council -- publishing minutes of proceedings, etc. Is there a way to break out the time staff spends on Council activities as opposed to the time they spend on Task Force activities? It's my feeling that the Council eats up a sizeable portion of the administrative budget.

(Iverson): We do that kind of a budget breakout for reporting to the Department of the Interior. I don't have the figures with me, but we could report that in the future.

(Holder): I'd like to compliment the staff on the work that is provided in this report. I do find that it contains considerable information that would best be digested by the interested parties if it could be provided in a summary format.

(Shake): I would entertain a motion for the staff to put together an accomplishment report which would summarize this document and make it available for public consumption.

(Odemar): I would like to suggest that we be very explicit as to the size of the product we want and just who the audience is. Perhaps a brochure would be a better way to go.

(Wilkinson): I'll second, but it appears to me that the Newsletter would be the appropriate format.

(Bingham): I support Keith's suggestion. Perhaps a special issue of the newsletter.

(Wilkinson): I don't think we need a special issue. This should be an ongoing thing. Each issue just be showing accomplishments of the program.

(Shake): Why don't we ask the staff to prepare a draft for review in time for our next meeting and make a decision on it at that time.

(Odemar): I commend Doug Alcorn for the work he put into this very comprehensive report.

(Shake): How does the Task Force want to respond to these recommendations. We don't want to just walk away from this. Issues have been identified for us to deal with. Is this a part of action planning?

(Odemar): As far as the three items identified for CDFG, I will start action on those right away. CDFG already has much of this information and I'll assemble it for the Task Force. I think the real problem is all the work identified for the Technical Work Group (TWG).

*** Action: KRFRO to present funding information, including non-Federal funding at next Task Force meeting.

*** Action: KRFRO to summarize findings in evaluation report to be included in the Newsletter.

Additional comments:

- o The Task Force should discuss funding request strategies. One time funding creates problems, such as having to spend it all in one funding year.
- o Getting recognition of the Salmon River restoration proposal at the Washington Office level is the first step. It's possible to highlight specific problems we might have the opportunity to address.
- o The US Forest Service does have the ability to spend money beyond each funding year. We're excited about the spring chinook recovery proposal, but we don't have our funding strategies worked out yet. At this point,

conceptual support by the Task Force would help us in developing funding strategies. I don't know what the protocol is for doing that.

The Task Force asked Bob Franklin to discuss tasks recommended for the Technical Work Group:

(Franklin): I can't speak for the TWG, but in looking at what was suggested, I agree that these are things that we should be involved in. When we discuss action planning, these things might fall out naturally.

Further discussion postponed until the Action Planning agenda item is presented.

***** Action: Put discussion of recommendations from planning effort on next Task Force meeting agenda?**

Task Force members introduced themselves to the audience. Technical support people in the audience also introduced themselves.

(Wilkinson): A lot of the attendees at this meeting are involved in the Oregon Salmon Trout Enhancement Program (STEP) program. They do work on the habitat enhancement projects. These folks are extremely knowledgeable of their projects and specific techniques, and should be recognized.

Agenda Item: Upper Basin Amendment (Alcorn).

Alcorn identified changes made by KRFRO staff to the upper basin amendment, prior to mailing out for public comment. The upper basin amendment was mailed out in the first week in November, 1991. The comment period is through December 15, 1991.

No further discussion.

Agenda Item: Action Planning (Franklin).

(Franklin): As a result of the evaluation report, the TWG has a lot of potential assignments. There are research needs, but the interrelationship of research and priority actions is obscure. We should develop a clear understanding of where we are now (fish habitat, populations, etc.). Information sharing is essential. We need to identify data gaps. Action plans should address research needs, policy implementation, manpower and associated resources available. The action plan should concentrate on developing additional funds. The TWG members have other job related responsibilities that do not allow for them to be fully committed to this assignment of action planning, nor the other assignments discussed in the evaluation report. One approach to accomplish this would be with a consultant, but that would be very expensive. Even if we maximize effectiveness, I don't see a whole lot of success in store. Dave Mackett may have better insight of the processes that can be developed and discussed.

Q: The task is greater than we can do with our funds, but is there commitment from the TWG that they could do more than they do now, considering the support they get right now?

(Franklin): There has been a small showing of effort by TWG members on tasks other than reviewing proposals. I think the members would want to do more.

(Lane): As an analogy to the Trinity River Task Force Technical Coordinating Committee (TCC), I've found that the TCC is not able to produce things, materially. They can review things, but it is very hard to produce things such as reports.

Additional comments:

- o Commitment of time and effort is more difficult for non-agency folks that are taking time away from their livelihood.
- o This is a problem if they don't have the time to address these issues. All representatives and Task Force members will have to deal with this.

Agenda Item: Planning (Mackett).

(Mackett): I'm a planner for NMFS. I've worked with the Klamath Fisheries Management Council (KFMC) because they are working on a long term plan right now. It is an attempt to put together a consensus strategy plan. It's very difficult to do. Concerning the Task Force action plan, let me characterize the problem:

> My definition of planning is a "systematic removal of confusion." There should be an organized process of removing the confusion. I'm talking about 2 different kinds of problems. Class 1: A manager knows how to handle a problem and make decisions (he doesn't need any other disciplines, answers are available). Class 2: A problem is more complex, and involves confusion of authority. There is missing information and the problem is not easily solved. Within a Class 2 problem, complexity comes in two forms. 1) Situational complexity (stream systems, ecosystems, etc.), and; 2) Cognitive complexity (how people interact). When all of the complexities are combined, the issues are difficult to resolve. Solving this type of problem requires a process which we've deployed called "interactive management". In this restoration program, many projects may influence other projects. We try to use the computer system at the NMFS office in La Jolla, to analyze how each issue relates to others. The Task Force should define and prioritize the problems, and work out the strategies to accomplish tasks. There is a network of information needed to analyze impacts of all projects. This should be done simultaneously with some kind of a feedback mechanism. Interactive management involves five components: 1) decent facility to do work; 2) facilitator; 3) interested participants who know subject matter; 4) computer system to help keep track of information, and; 5) array of consensus building methodologies.

Additional comments by Task Force members:

- o The Task Force has already been through the planning process. The task now before us is action planning. The process you lead us through is applicable to this.
- o The problems with the KFMC are complex because of harvest allocation. I don't see those issues in this body. The Task Force can go through this process much quicker with much more agreement. This process will work.
- o Technical expertise is needed in the planning process.

(Mackett): The knowledgeable people need to be there to provide information. If no other questions, I've written some options for planning, using interactive management techniques.

Options:
1) Private consultants.
2) Private consultants with training.
3) NMFS
4) NMFS with training by private consultants.
5) Other options (Continue as you have in the past.)

Q: What would be the commitment in time? How long would it take to get a useable product?

(Mackett): To answer that, I need to discuss this with some of you to get more specific information. I think it's a matter of how much time you're willing to commit to this, and how much support. We need computer support and staff support. Two or three three-day sessions would be needed to identify the issues. You also need a report produced. The total cost if you hired a consultant would be $50,000. If NMFS or the USFWS does this, it will cost the tax payers $50,000. This could be funded as a joint (USFWS/NMFS) venture.

(Wilkinson): I speak in favor of Option 3. If we go through this process, there must be a commitment from Task Force members to learn to reach consensus.

(Shake): The product would be a list of specific things that should be done in priority order for restoration of fish and habitat?
(Mackett): Yes.

(Shake): Would it be long term (3-year) products?
(No Answer)

(Mackett): We might look at how project X works toward us accomplishing product Y?

Additional comments by Task Force members:

- The way I perceive action planning is that we solicit proposals to accomplish those specific tasks identified in the planning effort.
- A problem existing now is that studies for lower priority stocks, such as green sturgeon are being funded over chinook projects. This planning effort would allow us to identify specific tasks that are critically important. This process forces us to examine each policy and see how it fits in with others, and determine how or if they need to be done.
- We've done the planning, with much public input, and compiled it into our long-range plan. Now we need to tell the world what it is that we want done. This process will tie them together.
- We are forced to do planning, implementation, and evaluation at the same time, which is confusing. This process incorporates all of those things.
- This may be perceived by the public as just more planning and not restoration. That's an issue that we all must deal with.

- o We need to look at the big picture. We should address the sources of the problems, not pour money into watersheds that have things occurring beyond our control. Planning is necessary.
- o We don't have the money to restore the entire basin. We can showcase the real problems. This must be done in a coherent fashion. If we can put a good plan in place, and convince the public to push this, then we can get the job done.
- o The process we've used in the past is fatally flawed. It will not accomplish the restoration goal.
- o The way to tackle this is to keep the final goal in mind, and focus on the heart of the restoration matter.
- o The Task Force already spends a lot of time planning the Restoration Program, each year. To maximize efficiency of this planning effort, we should continue this final planning phase, then go out with our RFP to get appropriate project proposals.
- o We should try to get this done in time for this year's process.

(Mackett): Problem isolation is the first step. Prioritization is possible when relationships between all policies are considered. Planning is organized learning, and eliminating confusion. It's difficult to say which policies should be implemented first. Eventually, what you want to end up with is an overall strategy to bring back the fish in the basin. This process will identify tasks, needs, information available, and information needed. Information feed back is an important aspect. This process will also allow you to identify the amount of money necessary and available for implementation of each of the categories. This provides a better strategy for the strategic plan. If you find relationships between all policies, you can compare how projects satisfy specific policies, how they relate. You may discover that many policies don't have any projects attempting to achieve them.

Q: Would you have us address each policy in the strategy plan, to determine where it would fall in the matrix? Or would you have us identify new policies and tasks?
(Mackett): It's up to the Task Force.

Q: Does this preclude the TWG developing a 3-year action plan, or which comes first?
(Mackett): It's the same thing as a 3-year action plan.

Q: The Columbia River Pacific Northwest Power Planning Council uses an adaptive management strategy, meaning you learn by your mistakes. What's your feeling about this?
(Mackett): It's good, but it doesn't go far enough in designing the interactive system. There are results that can't be anticipated. We must be prepared to react to these situations.

Q: How would you see the role of KRFRO staff in this process?
(Mackett): For this to work, you need a facilitator (me), a broker (someone who understands the problems), people who write reports, someone to facilitate information sharing, someone to provide logistical support, participation of technical people, and you also need someone that has the final word on what will be done. If the working group gets bogged down, an appeal must be made to the final level of decision making. These are the roles.

Q: How does this process avoid inherent biases of individuals?

(Mackett): In many cases, biases are a result of a lack of information. So the facilitator encourages discussion and dialogue. In most cases you converge on an answer, if some are willing to compromise. If you don't converge, there are techniques that will maximize convergence of ideas.

Q: Is this adaptive? If something is unknown, and an answer becomes known, does this process adapt, i.e. use that new information?
(Mackett): Yes. This is a part of the process. The computer system helps to narrow the interactions down to approx 1/3 of the original relationships. This 1/3 is analyzed by committee members.

(Shake): I'm reluctant to leap into things without having the opportunity to carefully consider this. I propose that we appoint a committee to outline a process for the Task Force to consider. Without that, I can't support another planning venture. We owe it to the public to get this done as soon as possible. I'd ask for volunteers.

*** Motion *** (Bingham): I move that we appoint a committee to sit with Dave Mackett to develop this planning process.

(Wilkinson): (Seconded the motion.) I hope that we can hear the public input before we take this action. I request the chair to defer the motion until we hear comment.

Q: Is it possible to get it into our next year's RFP process?.
(Iverson): We've tried to get the RFP out by late winter, early February. So this would have to be received by that time.

(Bingham): My motion didn't say that we should include it into this year's RFP process. That was just a suggestion.

(Shake): We'll table the motion until the public comments.

Agenda Item: Development of the FY1993 annual work plan: Drafting the Request for Proposals (Alcorn). (see Attachment 7)

(Alcorn): This has to do with what we've just been discussing -- how we're going to proceed next year. The eleven steps that I've outlined are similar to what we've done in the past. There are some changes to reduce the conflict of interest issue that we've been faced with in the past.

Step one is completion of the evaluation report. We hope to have the final evaluation report [the draft was presented earlier on today's agenda] completed and approved by the Task Force so we can use the information and recommendations to outline the upcoming Request for Proposals (RFP).

Step three is to mail out the RFP by the first of February with a closing date of April 1st. This allows two months for the proposers to look at the RFP and design some good proposals for submission by the closing date. Our experience in the past indicates that too short a time brings in proposals that are not fine tuned to the issues that need to be addressed.

Step six is the big change that should help us eliminate the conflict of interest issue. We were advised by our Contracting and General Services (CGS) people in Portland, that a Federal employee must make the actual

recommendation and the project selection and final approval in order to be funded by Federal dollars. I have suggested a five member panel of Federal employees that would be impartial judges having no financial or personal commitment in this basin. I suggested one member from Bureau of Indian Affairs (BIA), one member from National Marine Fisheries Service (NMFS), two members from U.S. Fish and Wildlife Service (USFWS), and one member from the U.S. Forest Service (USFS). Most of these folks would be from outside the basin.

This panel would sit in on the Technical Work Group (TWG) meeting which would proceed just as it does now, with open discussion which allows people to talk toward their proposal, stating their support of proposals, and answering questions. The major difference is that the TWG would not do the actual ranking of proposals. The five member panel, after having read the proposals and hearing the discussion by the TWG, would rank the proposals.

Step seven. Before the TWG meeting to discuss the proposals, the staff in our office would meet with the panel (possibly the day before the TWG meeting) and answer any questions regarding the proposals and clearing up any issues -- such as describing watersheds the proposals are located on, provide some insight on the basin as a whole, etc.

(Shake): In step six, are you sure this panel needs to rank the proposals? I thought the Federal folks simply looked at the proposals and determined whether they were technically sound and whether they met criteria in terms of being a reasonable expenditure of funds.

(Bryan): I have a real problem with this. Admittedly there is a conflict of interest issue. The TWG supposedly has the individual expertise. You take that away from them, you might as well fire us all. If a project comes up that I know a little about, then I'll provide my input. There's 13 other people that'll come down on me if they see a hole in it.

(Shake): Is it the ranking that you have a problem with?

(Bryan): Yes. The suggested panel is from outside the basin. They don't know what the interaction is. We know some of the on-ground practices that we've done that work. These outsiders, no matter how much briefing they've got, can't do our job.

(Alcorn): The reason that's suggested that way, is because the last couple years' meetings have shown that some members of the TWG have financial ties and they are committed to stand up and defend particular proposals more strongly than others. After the meetings are over, other members have stated that they had to agree to certain ratings for other proposals to insure they would get a fair rating for their own proposal.

(Bryan): I'll agree to that being a case, I just don't believe this is the answer.

(Odemar): We've spent a lot of time talking about what's wrong with the existing system, but this makes it that much worse because it's taking away the on-the-ground expertise of people who know how to rate these programs. Also, of the agencies suggested for the panel, two of them are very active in competing for available funds. Will these people be from outside the basin?

(Alcorn): That was the idea. We're looking for objectivity by those doing the ranking by removing them from any direct or indirect financial ties.

(Odemar): Unfortunately, you also remove them from any basin related expertise.

(Farro): I feel that I can't support this suggested process. I don't think this gets rid of the conflict of interest. It only shifts it over to a different group of individuals. I feel good about what the TWG is evolving to.

(McInnis): I think I can get some sea turtle biologists from the southeast region if you think that would help any. I'm sure they'd have no stake in this.

(Unidentified): I can see this as a real problem. We have enough trouble motivating the TWG to come in and do their job when they've got something active. If they perceive they have no impact because of another layer of screening, the priority of those individuals to participate in the TWG is going to go way down.

(Alcorn): This last spring we had a Federal review panel that did the preliminary review and found 15 proposals that didn't make the first cut. Some consternation was caused when we were later required to provide those to the TWG for consideration. You can see nothing is written in stone.

(Bingham): I'd like to speak in favor of the process used right now. We went through a special review process. I went through it all last year, and in spite of the fact we're still proposal driven (which our planning process is trying to correct), I thought it worked rather well. I think the remedy is simple. I suggest a simple rule that the TWG member who holds an interest in a proposal might not be allowed to rank that proposal.

(Odemar): Did I understand, Doug, that you were told that in the Federal process, decisions on proposals could only be made by Federal employees?

(Shake): We had Mike Bowen (USFWS, CGS) at the last meeting to talk about being sure we were in compliance with contracting regulations. There are certain processes that we have to go through to expend federal funds. Mike gave us a good outline of those types of things that are required. CDFG has the same kind of a situation, where they are constrained in terms of how they make decisions on projects. U.S. Fish & Wildlife Service (USFWS) has the ultimate responsibility to make those [expenditure of federal funds] decisions. We've worked out an agreement with contracting at the regional office for us to meet those responsibilities. If I remember right, that agreement doesn't say we have to rank them, but that we have to make sure they are valid proposals and that they're technically sound and that you're getting your value for the dollar spent. Once we meet that test, and this board group of Feds can do that, in terms of prioritization I find the responsibility still belongs to the Task Force. I like Nat's suggestion that if you have a vested interest in a proposal, you don't vote on it.

(Alcorn): Who would determine whether a proposer had direct or indirect financial interest in a proposal?

(Bingham): There has to be a certain degree of trust within the TWG. I think discussion within the group could determine this. It's a question of doing business honestly.

(Shake): It seems to me that this would be a matter of discussion when considering each proposal.

(Alcorn): That's the bulk of the change.

(McInnis): There is still a panel of Federal employees to pre-screen the proposals before the TWG sees them to see that the proposals are in the scope of funding authority?

(Shake): That is correct. It's not an option, we're required by law. I think the TWG will still see all the proposals, but some will have the explanation from the panel.

(Franklin): I think there is always a need for some interaction between the pre-screeners and the TWG. To make sure they're not inadvertently comparing apples to oranges. We need a mechanism in the future to deal with this issue.

(Hillman): Last year we weren't even allowed to know who the federal panel was or specifics as to why they didn't approve some proposals. A Task Force member should not have to use the freedom of information act to get this kind of information. There has to be some openness, integrity, and honesty in how we do business. We need some clarification provided to this body. Will this year's panel use the same criteria as last year's panel?

(Shake): Yes. I think we stumbled through a lot that we did last year. Because it was new, we were trying to align the process so that we were not subject to violating the contractual laws of the government. I don't think we did a very good job of the process. Everyone will be aware of what we're doing this year. We'll know who is sitting on the panel. The results will be open for full disclosure.

(Hillman): How are you going to eliminate the conflict of interest by the panel? The more we try to remove these elements, the more it seems to become a federal monster.

(Shake): I appreciate that thought. I hate bureaucracy but there are some things that we as federal employees have no control over. As long as this program's monies are appropriated by the U.S. Congress and comes through the USFWS, it has to be administered in certain ways.

Agenda Item: Public Comment.

Russ Crabtree: I represent the Klamath Management Zone Fisheries Coalition. The Coalition is comprised of 6 ports, from Humboldt Bay to Port Orford. We've put together a proposal (Attachment 8) that identifies goals to sustain an ocean sport fishing season, improve commercial troll options in the KMZ, secure uniform sport fishing regulations in the KMZ, allow for a shore based whiting fishery in the KMZ, and achieve marketability of KMZ ports.

Jim Welter: The Oregon South Coast Fishermen would like to suggest a solution for implementing the Klamath Restoration program. This suggestion is to reduce the number of fish reared in Iron Gate Hatchery and Trinity River Hatchery, to produce only yearling fish. We also propose that you consider trucking 50% of the fish to the estuary for release. Local communities cannot remain viable while waiting for this plan to be implemented. (Presented the written proposal to the Task Force chairman).

Dee Shartleff: I was on the original Klamath Management Group. To elaborate on Jim's proposal, we haven't got the 20 years to wait for the implementation of the Klamath River Restoration Program. We must do something to sustain our fisheries. This proposal will give us something to maintain these fisheries in the time that it takes to implement this plan. Releasing fish in the lower river provides for higher survival rate back to the fisheries. We can see an increased return of hatchery fish to the fisheries, and an increased survival of natural stocks because competition is reduced. The draw back of this proposal is that straying is increased. I think that this can be worked around. I would hope that an additional problem would be over-escapement to the hatchery.

(Bingham): Speaking to the proposal, the Salmon Stamp Committee did fund a project on Trinity River Hatchery just as you propose. The fish were not trucked downriver as you propose, but we believe the project was successful. I support this activity, and encourage your group to keep this idea alive.

Additional comments by Task Force members:

- o Technical representatives of the Klamath and Trinity River Task Forces should review the hatchery operation proposal presented by the KMZ Fisheries Coalition.
- o The KMZ proposal should be addressed in light of our long-range plan policy 5.1. This policy requires that we look at status quo, and make changes accordingly. Changes will be identified.
- o I'm concerned that we're considering this proposal outside of the normal proposal review procedure.
- o We should keep the communication open between the KMZ Fisheries Coalition and the Task Force.

*** Action: Klamath River TWG and the Trinity River TCC shall review the proposal presented by the KMZ Fisheries Coalition at the chairmen's requests.

John Wilson: I think the Task Force has done a good job of anticipating what criticisms of them are going to be. I'm concerned about the funding being in favor of bureaucracy. I suggest an approach that will limit the funding of bureaucracy. Your original funding was to keep the fisheries afloat while long term restoration was implemented. This has failed. You should seek proposals from the public that seek to address problems. There must be some non-controversial projects that we can get going on. The spring chinook run is an example of this, we just counted them this year. This federal money that was supposed to keep the fisheries afloat has been spent to keep biologists employed but not to impact the fisheries.

Additional comments by Task Force members:

- o Please keep in mind that additional non-federal monies are being spent on this restoration project. It's not all bureaucracy.

- o We should all recognize that we're trying to restore fish runs in the worst set of circumstances known. We're looking at severe drought, please understand that we are frustrated as well.

Q: Even though you would like to see the pie-chart change, do you favor continuation of this planning effort?
(Wilson): Yes.

Ann Ramp: I'm chairman of South Coast Fishermen's Public Action committee. We agree fullheartedly to support the KMZ Fisheries Coalition's proposal. I must tell you that there appears to be nothing done. I also must tell you that the quality of the Newsletter is very good. I've only got 4 left, of 50 copies. It provides the kind of information that the public needs. Also, we have a nice surprise for this group at 4:30.

Lucy Giampaoli: Concerned citizen. I've worked with various fishing groups. All citizens are concerned with our fisheries. Jim Welter has been recognized by the STEP program. This plan is important to us, our fishermen are suffering, we need some action now.

Lyle Timm: President of South Coast Fishermen's Association. In this meeting, I haven't heard a report on the 1991 fish count. I want to tell you that fishery restoration can be done. We have fish returning to the Chetco River as a result of Oregon STEP. Our problem now is that we have too many fish on the Chetco River.

Q: Are you in favor of the action planning process previously discussed?
(Timm): I'm against more planning, I think we're holding up progress.

Jim Welter: I agree with planning if it can be done in 9 days.

(Shake): We have a motion tabled until public comment. The floor is open for further discussion.

Discussion of the action planning effort:

(Bingham): My motion was that we form a group from the Task Force to sit down with Dave Mackett in order to develop a planning process, flesh out alternative approaches to it, bring it back to the Task Force, and move forward at the earliest possible date.

Additional comments by Task Force members:

- o It looks as though this process has been pretty well tested. It might be possible to get through the process and incorporate it into the FY1993 RFP. That way we wouldn't miss an entire year.
- o We should go into the planning effort with the realization that if we're not satisfied with the result, we would continue the next year's RFP process the way we have in the past.

Q: Would it be more efficient to do this step tonight?
(Bingham): I'll amend the motion to this effect.

*** Action: Task Force members willing to discuss this with Dave Mackett after the executive session shall remain after that session.

Agenda Item: Report on water management issues (Orcutt).

(Orcutt): The Hoopa Valley Tribe has great interest in developing a flow study in the Klamath River system. I'll bring you up to date on what we're doing. In May 1991, the Secretary of Interior chose to deviate from the 1981 Secretarial decision on releases from the Trinity Reservoir. The decree set the annual release flows at 340,000 acre-feet, which is what was shown to benefit fisheries. The decree was to be implemented through 1996. Since that decree, congressional action has been set in motion, and a bill is being reviewed in the Senate that would establish a 340,000 acre-feet release in law. It is scheduled for action in the near future. We would like support on that flow issue. I believe there's an opportunity to come up with criteria for flow releases in the Klamath River system. Right now, we're going with the 1957 Klamath Compact. I see a need to develop studies to answer flow issues. The HVTC is willing to work with the other tribes on the lower river to identify Klamath flow needs.

(Wilkinson): I appreciate Mike's report. It is important to note that we got the valve opened in the 6th year of a drought.

(Bingham): The California trollers have supported their efforts.

Agenda Item: Reports on Forest Management issues.

(Holder): The Klamath National Forest Land Management Plan has not been released to the public yet. We're still looking at data. We've done something unique in this planning process. We've not just taken public input, but have placed public members on an interdisciplinary team to develop the plan. Watershed issues and fish and wildlife concerns were considered. Seven alternatives have been identified and considered. This month, with those seven alternatives close to completion, we're pooling our citizen's participation panel to help analyze these alternatives to come up with recommendations for a preferred alternative. We hope to have the draft out in late winter. The plan is unique in that we're looking at biodiversity for many species, including aquatic refugia for fish species. We have additional considerations for wild and scenic river designation. Timber harvest is prohibited in many areas for 10 years. For project level plans, we're analyzing "landscapes." These are 10,000 to 80,000 acre areas. We're looking at desired future conditions, looking at project proposals and how they relate to biological diversity. One of the disappointments in the plan is that there is not a lot of decision space left. Land allocation has been decided in much of the land base. We've taken the time to gather firm footings for this plan.

Q: These 7 options are the only ones to be picked from?
(Holder): It's the land-base designation itself that may not have much room for decision. Example, spotted owl critical habitat is already designated. It's not a clean slate for 1.6 million acres for designation.

Q: The USFS habitat restoration programs are funded with timber sale revenue, In a time with fewer sales, will this source of money dry up as sales are reduced. Will funding prohibit implementation of these restoration projects?
(Holder): Knudsen-Vandenberg (KV) funds will be limited, but this makes up less than 10 percent of our total fisheries restoration budget.
(West): Eighty percent of our fisheries program is not tied to timber harvest.

Agenda Item: Klamath River Information System:

(Iverson): The long-range plan calls for a database system that will allow for evaluation of fish restoration projects. In June, we learned that the State Water Resources Control Board (SWRCB) approved a proposal submitted for us by Kier Associates for development of the Klamath River Basin Information System. The Information System will be organized around the River Reach File system, developed by the Environmental Protection Agency (EPA). You have, as a handout (Attachment 9), a brochure that explains how the reach file system works. It is organized by particular stream reach, each reach having a unique identifying number. The elements of the scope of work include identifying a particular reach file version to use in our program, identifying a data storage option, developing a data entry and retrieval protocol making it user friendly, training various Task Force and other agency staff in using this system, and enlisting their cooperation in developing and refining, and developing a prototype system. This will be a small scale information system that can be tested, refined, and expanded into a full scale information system. This would be along the lines of what is used in the Columbia River system. We've gotten much participation from EPA, and the North Coast Regional Water Quality Control Board. The Information System will provide information storage and retrieval for fish and for water quality control data agencies as well. Many agencies are very interested in this. We have a contract being prepared now by SWRCB.

Q: When this is completed, where will the database be kept? Who will have access to it?
(Iverson): That remains to be seen. It can be housed in different locations, and utilize electronic and paper links. Access can be accomplished with a computer and modem. Another option would be to house it locally.

Agenda Item: Process for tracking volunteer contributions.

(Iverson): We've amended the language in our cooperative agreements, asking cooperators to keep track of volunteer contributions, so we may track it.

End of Task Force discussion, November 6, 1991.

[Executive session and planning discussion held later in the evening on November 6. See Attachment 11 for minutes of the planning discussion.]

November 7, 1991.

Report on evening discussion of further planning efforts:

(Bingham): We decided to go ahead with a planning process committee. Keith Wilkinson, Dick Sumner, Barbara Holder, Nat Bingham, Mike Orcutt, and Mel Odemar will meet with Dave Mackett on November 20, 1991, in Redding. Technical support will consist of Jack West and Ron Iverson. We will put together strategies to accomplish a short term 3-year action plan.

(Shake): An agenda item for our January meeting should be "FY1993 RFP and project selection process."

*** Action: Place discussion of the FY1993 RFP and project selection process on agenda for the January meeting.

Agenda Item: Reports on Forest Management Issues (Sommarstrom).

(Sommarstrom): There are three issues I wish to discuss: 1) State of the emergency California State Board of Forestry rule changes; 2) water quality monitoring, and; 3) Scott River (French Cr.) mixed ownership study.

Timber issues:

(Sommarstrom): Negotiations started last fall, right after the narrow defeat of the "Big Green" ballot initiative in the November election. Several timber companies and environmental groups came up with the Sierra Accord. As a result, four bills were introduced to the state legislature, last spring. The bills were close to resolution, but some companies and the Governor's Office hadn't supported them fully. All four bills were meshed into one, and it was passed on September 13, 1991. Within 30 days the Governor vetoed the bill because is was supposed to be non-implementable. Then, one week later, a package of emergency rules was instituted by the Board of Forestry, which would limit timber harvest. Many companies were opposed to the emergency rules. The Office of Administrative Law, made a findings to remove the emergency rules from institution because of many legislative problems and lawsuits. (AB-816). In terms of how this relates to your long-range plan, it is more consistent with the plan than before. There is more of an ecosystem approach. Fish and wildlife issues are forerunners in decision making. Things are still dynamic. The Task Force could still send a letter of support, recommending consistency with your long-range plan.

(Bingham): A few comments from the troll fishermen. It is appropriate for the Task Force to send letters to the CDF, the Governor's Office, the State Board of Forestry. The trollers were not involved in the Sierra Accord process, that bothered me. We had input through some of the negotiators, but were not at the table. When negotiations were complete and it became part of the legislative process, we then had the opportunity to comment. I feel that many of our interests were traded off as this transpired. I feel that trade-offs were made at the expense of fisheries concerns. We supported it until it got on the Governor's desk. In our letter, I think we should urge that there be a more open process of negotiation so all concerns can be expressed and considered.

(Franklin): On the Trinity River, the Grass Valley Creek watershed is very sensitive. Not only can we not improve the practices, we can't prevent practices from getting worse. Cumulative impacts must be considered, and yet forest practice rules are not improved.

(Sommarstrom): The new emergency rules contain a cumulative impact rules package, which may help. Watershed planning is also going to be considered in timber sale negotiations.

(Wilkinson): We might consider following Nat's proposal, and express our concerns about the agency process, and suggest that we're willing to participate in the process. It is a socially and politically sensitive issue, we must be willing to participate.

*** Motion *** (Bingham): I'll move to write the Governor, with copies to the State Board of Forestry, and other agencies, expressing our willingness to get involved, and provide support material from our plan. (Second by Farro.)

Motion carried.

*** Action: KRFRO will prepare a letter, as stated, addressed to the Governor's Office, with copies to appropriate agencies.

(Sommarstrom): When I was at the tour of Grass Valley Creek, I was asked to give a talk on the French Creek study. I had an opportunity to provide information on what is being done. We're getting information to rule makers.

Water quality:

(Sommarstrom): The State Board of Forestry is required by EPA to implement a monitoring program of water quality, and implement BMPs. We're formalizing the advisory committee program which includes four people from Scott Valley, (of a group of 19) who are familiar with the Klamath River. This committee will decide on areas of concern for monitoring. This group has met twice, and will report to a technical group of CDF, CDFG, and the Water Quality Control Board, to add details on how to do the monitoring program. The report will then go to the State Board of Forestry next winter for consideration, and hopefully be implemented in 1993. The process is to see if BMPs are working. If not, changes will be made to make them work. This is complementary to what the USFS is doing.

Q: What are some of the guidelines in monitoring?
(Sommarstrom): The guidelines are:

- Who? Someone other than CDF. An interdisciplinary group (CDFG, Water Quality Control Board, Public, State Board of Forestry).
- Where? A representative cross section of timber sale areas.
- What? Anything that affects water quality. The technical group will decide what will be monitored (quality parameters). Land access is also an issue.
- When? EPA won't certify the BMPs until commented on by public.

Q: Do you plan to look at USFS monitoring data? Or will you start from scratch?
(Sommarstrom): We will look at USFS data if it is comparable.

French Cr./Scott R. mixed ownership process:

(Sommarstrom): The State Board of Forestry was getting a lot of flack about private over-harvest of some sections in mixed (public/private) ownership watersheds. The Board of Forestry has committed to two case studies, of which French Cr./Scott River is one. This was chosen because a database is already developed as a result of the Task Force funded project. There's a management plan draft for the watershed which includes a road management plan. This addresses the whole issue of management considering mixed ownership, time of use, needs, maintenance scheduling, etc. The County Roads Department has changed their maintenance policies, and other sections of road are being rocked. There is much agreement and cooperation shown. The State Board of

Forestry is the "lead agency". This is much like a CRMP, but for a longer term.

Q: Do you see the Task Force as providing seed money?
(Sommarstrom): Yes. This group can have much influence by providing seed money.

(Bingham): This should be reflected in the newsletter, that the Task Force was instrumental in getting things done. Here's a case where we've started something that has led to a State Board of Forestry change.

*** Action: Tricia Whitehouse will work this into a future newsletter.

Agenda Item: Fish disease survey, (Foote).

(Foote): We did a fish health study this spring on the fish produced at the Trinity River Hatchery. The objectives of the study were to examine hatchery and wild chinook, coho, and steelhead as they migrated downriver. We wanted to examine the health of fish 14 to 21 days prior to release. Then we compared this examination to fish trapped in the river, 21 to 28 days after hatchery release. Trinity River Hatchery fish that were trapped in the beach seining project downriver were collected and analyzed for disease. We looked for systemic and blood viruses, systemic bacteria, Bacterial Kidney Disease (BKD), and external or internal parasites. We also used the technique called "Organosomatic Analysis." (You open the fish and look at organs for major notable problems.) We chose certain pathogens based on the history of occurrence at the hatchery. We also looked at the level of smoltification and visceral fat. Visceral fat is an important energy source for the fish during the period required for learning to feed in the wild environment. We worked out of our mobile laboratory. Spring chinook smolts were infected by BKD only 16 days after release. This kind of work is valuable because we analyze how hatchery reared fish survive in the wild. In general, hatchery fish are slightly less probable to survive to adulthood.

(Dr. Foote presented a slide show of his work and results in the Trinity River Basin.)

Agenda Item: Coordination of restoration programs, (Lane).

(Lane): I'm here to request formalization of a line of communication between the Trinity River Task Force, the Klamath River Task Force, the Klamath Fishery Management Council, and the CDFG. There are three primary elements involved in the management in the Klamath/Trinity basin. These are: 1) Hatchery operations; 2) Restoration program, and; 3) Harvest management. Three of the Trinity River restoration program goals (out of a total of five goals) are to: 1) Modernize the Trinity River Hatchery; 2) Restore full natural salmon and steelhead production, and; 3) Contribute to the harvest management process. We've modernized the hatchery, now we're into evaluating the production and impacts of the TRH. All of these goals impact one another, so we need to look at our current system to see if we're getting adequate coordination among the management and restoration entities. I'm here to ask the Task Force for assistance to evaluate the present coordination between these groups, to see if it's adequate. I see potential to utilize hatcheries more efficiently, but the communication and coordination should be more formal.

(Odemar): The Department (CDFG) supports this idea, but this group should recognize the difference between hatchery management and resource management. We should set the standards of numbers, size, and health of the fish, and let the hatchery operators produce these.

Additional comments by Task Force members:

- o The definition of "success" and evaluation of "success" should be clearly understood. Returning natural spawners as a measure of success at the expense of harvest is not really success. Co-management requires that all entities be represented at the negotiating table.
- o An annual meeting of both Task Forces would be in order.

(Lane): What we need is for the major players to assess the overall program, and look at what we're all doing in order to coordinate our efforts.

*** Action: KRFRO shall prepare a letter to send to the Trinity River Task Force, and the KFMC requesting a meeting of the three Chairs. Iverson and Lane will coordinate the meeting and complete an agenda. The meeting will be to identify specific management issues needing coordination. A report to the Task Forces will follow.

(Odemar): Policy 5.A.1 indicates that the TWG is supposed to work with the Department to insure that mitigation hatcheries are not impacting wild stocks. We should ask the Chair of the TWG if this is possible.

(Franklin): It must be done by somebody. The TWG members will have to look at our workloads, and then determine who might work on this task.

(Odemar): I have a meeting scheduled with CDFG hatchery staff of the Iron Gate and Trinity River Hatcheries. We hope to consider release strategies, density factors, water temperature, etc. I can offer to report back to this group on what effects changes in operations can have.

(Lane): There is some new information on release strategies from Dr. Hankin that should be considered in these meetings.

(Shake): Hearing no objection, we'll accept Mel's offer. Will you take the coalition's proposal for consideration?
(Odemar): Yes.

*** Action: Mel Odemar to report at the next Task Force meeting, the results of the meeting with Iron Gate and Trinity River Hatchery staff. Discussion items shall be hatchery operations and the KMZ Fisheries Coalition proposal.

Agenda Item: Klamath Stock identification committee report (Barnhart).
(see Attachment 10)

(Barnhart): The committee has met twice. (a meeting on Oct 1, then a conference call Oct 29th.) At the initial meeting we reviewed our assignments: to review fish stocks identified in Chapter 4 of the long-range plan; to evaluate the rationale used to define the meaning of "stock"; to review pertinent fisheries information, and; to identify needs for information to be used in defining "stocks." We did not arrive at a consensus on the

definition of "stock." Robin Waples attended our meeting to present the concept of "Evolutionary Significant Unit" (ESU) as one option to consider in our definition. He provided criteria used to identify an ESU.

We have a possible definition of "stock." (See Attachment 10.)

The committee has these requests: 1) To focus efforts on salmon and steelhead stocks; 2) Change membership (see attachment); 3) Task Force guidance on timing of a final report. We may identify some information gaps that the Task Force may want to fund studies for.

Comments by Task Force members:

- o The committee should take the time they feel is necessary to do a thorough evaluation.
- o I commend this effort. Stock definition has been a very great concern. I think you're off to a good start.
- o I agree with the names suggested by Dr. Barnhart for membership on the committee, but it should be left up to the agencies to make the appointments.
- o Our definition of "stock" should be consistent with the fisheries experts throughout the northwest.

(Shake): I suggest we have a motion in support of the proposed committee membership.

** Motion ** (Wilkinson): I'll move that we accept the committee's recommendations, leaving the flexibility of membership up to the committee.

(Motion carried.)

Award Presentation: (Shake).

(Shake): One of my other responsibilities is to sit on the board of directors for Trout Unlimited. Dr. Barnhart has been selected as the "Conservationist of the Year" by Trout Unlimited, in the professional category. He's been responsible for developing many techniques, and has been a strong leader and advocate for catch and release, I'd like to take this opportunity to present it to him. Congratulations.

(Farro): I'd like to take the opportunity to thank Roger for providing technical help in many projects I've been involved in.

Agenda Item: Spring chinook recovery plan, (Holder/West). (see Attachment 12)

(West): I have a tape that I want to show, that the USFS will use as a video letter to gain support for the proposal. (Showed video and slide show. West noted that the proposal was developed by a work group made up of various agency and tribal representatives.) Habitat restoration was area of focus in the presentation. Specific examples of habitat conditions and requirements discussed. Needs in the basin include: road management strategies; identification of the real source of erosion; riparian reforestation for long-term habitat restoration. Presently the budget on the Salmon River drainage is short by $750,000 per year to implement this program. The possibility for

success may be 50%. Spring chinook salmon population will probably continue to decline to extinction if nothing is done.

(West): I'm asking the Task Force for your philosophic support and support for further coordination between agencies. Where do we go from here? The video wasn't prepared for this Task Force, but for the USFS. The USFS, as an agency, can't lobby congress. The USFS fisheries program has been built through a lobby called "Fishnet." This may be the avenue we must take. There is a good chance that we will fail. I'm asking for a letter of support for us to take to the region office, to show that this group supports this proposal. That's all.

Q: The title of this strategy is to recover fish in the Klamath River basin, however, the effort is focused on the Salmon River basin. Is the proposed plan actually for the Klamath River basin, as it is titled?

(West): Yes, over 50 a year period. The first 20 year period will be focused on the Salmon River basin. We'd like to make it a cornerstone of an effort for watershed restoration.

Q: What is the breakdown of landownership? Isn't it mostly Federal?
(West): Yes.

Q: Is it the Federal Government's responsibility to restore this system because of historic land use allowed on Federal land?

(West): For a variety of reasons, the habitat isn't pristine. Compared to most watersheds in the Klamath basin, it is in good condition. In the past three years, particularly on the Klamath National Forest, watershed condition has become a focal point for land management. In 1980 the cut in the Salmon river basin was 42 million board feet. It is drastically reduced this year. The Salmon River is designated "Wild" and "Scenic". The emphasis of this plan is to recover the habitat, which will benefit all species in the stream.

Q: Are you involving the Shasta-Trinity National Forest? It is another Forest with suppressed spring chinook populations.
(West): The Shasta-Trinity biologist didn't want to include the Trinity River stocks in this proposal.

Q: You speak only of the illegal take of salmon. What about impacts of legal take, and what might be done there?
(West): The work group discussed that at length. There have been a number of changes made over the last 10 years in harvest, but most harvesters feel they've been blamed unnecessarily for the decline. The point that I'm trying to make is that we all must share the blame.

Q: Do you have early water quality data prior to the '87 fire? And if so, has it impacted the water temperature?

(West): There has been no significant increase, but water temperatures have been extremely warm since the early 1900's. Probably as a result of the historic mining industry.

Q: What about sediment?

(West): Our National Forest Geologist is presently working on the sediment budget project. The final report will be distributed to the Task Force when complete. Many burned areas are putting in a tremendous sediment load.

Q: Who are you asking that we direct our comments to?
(Holder): A good place to start is the Regional Forester.

** Motion ** (Farro): I move that we send a letter strongly supporting this plan.

(Shake): Let's pause for discussion. What is your time schedule?

(West): We're hoping to make a presentation to our Regional Office in November, to be considered for the FY1992 budget. We need to have good coordination with the CDFG for short term enhancement, possibly fish culture.

Q: Was Task Force money used on some of these projects? The general public needs to know that Task Force was instrumental in some of the studies.

(Shake): That expenditure needs to be in the letter, indicating we've supported this.

(Holder): This could have potential for a working model with national significance.

(West): This is what the USFS has called a "Conservation Strategy."

(Hillman): I suggest that the content of the letter indicate the Task Force has shown a commitment in the past, and has shown concern and support for the Salmon River restoration.

*** Action: KRFRO to draft a letter for Mr. Shake's signature, addressed to the Regional Forester, USFS.

*** Action: KRFRO to report in a future Newsletter, that the Task Force has funded restoration projects in the Salmon River basin.

*** Action: Barbara Holder to keep the Task Force informed on progress of the restoration proposal.

Agenda Item: Decomposed granitic sedimentation conference proposal, (Sommarstrom).

(Lane): This proposal came to the Trinity River Task Force from Sari Sommarstrom, to develop this symposium. We're finishing up our study on Grass Valley Creek, and we wanted to incorporate state-of-the-art erosion control and restoration techniques in the GVC. We thought that this symposium would provide useful information. We requested that she provide a specific report of how this would apply to GVC watershed. One stipulation to the Trinity Task Force funding approval was that Sari come up with other sources of funding. We later found out that it wasn't funded by the Klamath Task Force.

(Sommarstrom): The proposal is for a two-day symposium and field trip in fall 1992. Published proceedings would result. Much information on Decomposed Granitic (DG) soil isn't published. DG soils are a problem in many western

watersheds. The purpose of the workshop is to get everybody to discuss how to go about DG watershed restoration. I requested $6,000 from the Klamath Task Force. We think we'll get 100+ attendees. We'll have to raise an additional $18,000 from other funding sources. Your decision to fund this will depend on your desire to provide an outreach program. What's in it for the Task Force? For a $6,000 investment, you'll get $100,000 worth of professional advice. In the minutes of your June 17, 1991 meeting, there were comments that suggested that we shouldn't fund expenses for conference organizers. This funding is for operating expenses, not to pay someone to put it on.

Comments by Task Force members:

- o We put in $1,000 for the Native American Fish and Wildlife Conference.
- o It is worth trying to get funding from the USFS. I think an official request to the Regional Forester would be worth your effort.
- o If we consider this proposal out of the normal procedure, it may set a precedent.

(Shake): This still leaves us with a question for funding. The questions that we must consider are: 1) Is the money available?, and; 2) Do we want to elevate the proposal for additional funding?

(Iverson): Our FY1992 annual workplan indicates we have $987,000 obligated, of an expected $1 million available.

(Alcorn): This proposal fell immediately below the "high" budget line in the ranking process.

(Farro): I recall that we addressed this issue of discussing these proposals outside of our accepted procedure, and that we wouldn't do it.

** Motion ** (Wilkinson): I move that we approve $4,000 for funding this project. (Bingham): Second.

(Shake): Hearing no objections, we'll approve it for $4,000 funding, assuming that Sari will get the other $2,000 from another source.

(Motion carried.)

*** **Action: KRFRO staff to prepare a purchase order for the University of California to support the Decomposed Granitic Soil symposium with FY1992 funds.**

Agenda Item: Trinity Restoration Program library, (Sommarstrom).

(Sommarstrom): The Trinity Task Force determined that there needed to be an effort to consolidate into one location, all literature on restoration work that had been done in the Trinity Basin. A library is being assembled, funded through the Trinity County Grant Program. Phase I was to review all existing literature. Phase II is to get all of the materials to one location (new county library), which will have a special section for the Trinity River Fishery Restoration Program material. It will be fully computerized. It's expected to be completed by January, 1992, and catalogued a couple of months later. A database will then be circulated.

Agenda Item: Application of Geographic Information System (GIS) Technology, (Energy Resource Advocates).

(Collona): (Introduced project.) Our objective is to show you a visual presentation describing the problems addressed, then describe methods and technologies utilized in this project. We're in the process of completing our final document. We hope to get feedback from you, that will be incorporated into the final document. The basic idea was to provide visual aids, describe the technology, and show how GIS can work for this restoration program. (Collona gave a slide show presentation which showed how landsat imagery could be used to interpret and assess large-scale land management activity; how ground truthing and aerial photo documentation are necessary to confirm interpretations, and how this information could be incorporated into a GIS system.)

Comments by Task Force members:

- o It's hard hitting. I would like the opportunity to comment on the draft report.
- o I thought it was an excellent report.
- o The biggest value of the project, for us, was that it was a good educational tool. I suggested including some visual inserts into our newsletter. Not enough people see this kind of information.
- o Accuracy of interpretation is necessary, before it goes to the public. Conclusions should be scientifically based.
- o Conclusions presented indicate personal biases. The purpose for research and analyses is to present information to decision makers, allowing them to draw their own conclusions.

(Adams): This has great application regarding implementation of the Forest Practice Act. I would hope that this Task Force would be influential in getting changes initiated.

(Collona): The rate of cutting over time is something that you need to look at. The rate of harvest of second growth is a real problem, the industry is cutting trees quicker than they are growing.

(Bingham): This report puts timber harvest information right up front. It needs polishing, but should be put into a newsletter. Have you thought about incorporating this into the reach file database?

(Rohde): Yes. These systems are compatible.

(Holder): The USFS is looking at GIS through contract, to try to do landscape level analyses. This allows us to utilize visual analyses techniques as well. It's confusing in the timber industry because there is so much going on. I have a lot of questions how this ties in with all that is occurring.

(Rohde): This technique can give you the ability to ascertain which areas need special and immediate attention. The next step is to give this to the technical staff for them to locate high priority areas. We need to know where the fish are, where habitat is, where it is not, and use this information to make management decisions. This Task Force must take a close look at the need for a strong planning effort, I believe we've given you a good planning tool.

Additional item for discussion: (Sumner).

(Sumner): I've been requested to ask this Task Force to seek a CDFG fishing regulation change for the areas at the mouths of some Klamath River Tributaries. The request is to close the Klamath River to chinook salmon fishing in the area 300 feet upstream and 500 feet downstream from the mouths of the Scott River, Shasta River, Cottonwood Creek, and Beaver Creek. The fish ares virtually unusable when they get up that high anyway. The request is for the Task Force to draft a letter to the California Department of Fish and Game (to be signed by the chairman of the Klamath Fishery Management Council) requesting that this action be taken by next spring.

** Motion ** (Sumner): I so move. (Farro): Second.

(Bingham): I support this, but I would like to be assured that there is a group of anglers who also support this action.

(Sumner): There's a group that does, and one that doesn't. There were about 500 fish counted at the mouth of the Shasta, and about 90 fish caught at that location. The impact of taking 20% of the run is significant. I'm sure there will be some squabbles from some local fishermen, but I think it must be done.

(Wilkinson): We need to make sure that we don't impact other fishing interests, i.e. sturgeon and steelhead.

(Shake): Hearing no objections, we'll ask KRFRO draft it, for signature by Mr. Fullerton, to be sent to CDFG.

*** Action: KRFRO staff will draft a letter for Mr. Fullerton's signature, requesting that CDFG close the specific areas of the mainstem Klamath River to chinook salmon fishing.

Agenda Item: Set next Task Force meeting date

Next Task Force meeting set for Jan 13th through Jan 15th, 1992, in La Jolla, California. KRFRO will send specific meeting information to all involved.

(Shake): Regarding the KMZ Fisheries Coalition proposal. CDFG will discuss this proposal at their upcoming hatchery evaluation meeting. We'll keep you informed. We will address this issue at next meeting.

Public Comment:

Jim Welter: I thank the Task Force for coming to Brookings. I hope that what was done here will get the Task Force moving in the right direction.

(Unidentified): We've had a tremendous upwelling of water in the ocean this year. I think CDFG needs to ship fish downstream. Also, I think you could be successful raising fish in various downstream locations.

(Unidentified): Thank you for coming to Brookings. I would recommend allowing discussion after each motion. I'm concerned about fish allocation. I hope that you look at this fish production proposal.

(Bingham): I think it's appropriate to allow comment when decisions are made. This used to be this way in the old days of the council.

(Hillman): I appreciate the hospitality of the local folks, very notable.

(Unidentified): We can't fish out here in the ocean because we'll catch all the fish headed to the Klamath River. I went to Mexico to fish, and saw a Klamath River fishing report dated 8/22/91, indicating good fishing in the River. I don't understand the logic when I can't fish here in order to allow fish to escape into the Klamath River, then the Klamath River fishermen are allowed to fish for them.

(Shake): Allocation is based on equitable harvest sharing. This question you bring up should be addressed to the PFMC and the KFMC.

Meeting adjourned.

Attachments:

1. Attendance Roster
2. Agenda
3. Status report of CDFG funded projects
4. Four year cumulative funding report
5. Dbase tables: Status of Restoration Program projects, Fiscal Year 1989 through FY1992
6. Four year cumulative funding chart.
7. Proposed 1993 Project Selection Process
8. KMZ Coalition proposal.
9. Information System Brochure
10. Report of Stock Identification Committee.
11. Minutes from the Task Force Planning discussion, held in the evening of 11/6/91.
12. USFS Proposed Strategy to Recover Spring-Run Chinook Salmon.

ATTACHMENT 1

KLAMATH RIVER BASIN FISHERIES TASK FORCE

Attendance Roster, November 6-7, 1991 meeting in Brookings, Oregon.

Task Force Members Present	Representing
Nat Bingham	California Commercial Salmon Fishing Industry
Mitch Farro	Humbolt County
Leaf Hillman	Karuk Tribe
Barbara Holder	U.S. Department of Agriculture
Walt Lara	Yurok Tribe
Matthew Leffler	Trinity County
Rod McInnis for Fullerton	National Marine Fisheries Service
Mel Odemar	California Department of Fish & Game
Michael Orcutt	Hoopa Indian Tribe
Bill Shake (Chair)	U.S. Department of the Interior
Dick Sumner	California In-River Sport Fishing Community
Mike Bryan for Thackeray	Siskiyou County
Keith Wilkinson	Oregon Dept of Fish & Wildlife

Task Force Members Absent	Representing
Don DeVol	Del Norte County

Others Attending	Representing
I.L. Ashinger	Self
Jim Adams	Energy & Resource Advocates
Robert Allen	Self
Judith Behary	Self (Commercial Troller)
Skip Behary	Self (Commercial Troller)
Craig Bienz	Klamath Tribe
Serge Birk	Trintiy Restoration Program
Edgar Bush	Self (Commercial Troller)
Russ Crabtree	Klamath Fishery Coalition
Chuck DeJournette	Tehama Fly Fishers
Greg DesLaurier	Klamath National Forest
Ted Elliott	Self
Art Ferrare	Self
Scott Foott	USFWS
Bill Forbes	Leopold Interpretation Club
Robert Franklin	Hoopa Valley Tribe
Lucie Giampaoli	Self
Greg Haas	Curry Coastal Pilot
Debora Harig	OSCF
Kate Jopson	Self
Chuck Lane	US Fish & Wildlife

Others Attending	Representing
Gary C. Lewis	Brookings Chamber of Commerce
Marion Linville	Self (Commercial Troller)
Robert Franklin	Hoopa Valley Tribe
Mayor Fred Hummel	City of Brookings
George Kautsky	Hoopa Valley Tribe
Paul Kirk	Six Ports of Coalition
Kathy Lindley	Brookings-Harbor Chamber of Commerce
Dave Mackett	NMFS
Rocky McVay	Curry County Commission
Ken Neel	Six Ports of Coalition
J.R. Patey	South Coast Fishermen
Ann Ramp	Oregon South Coast Fishermen
Peg Reagan	Curry County
Jack Sarin, Sr	Happy Jack Fish Co
Dee Shartleff	OSCF
C.M. Solvaag	Self
Sari Sommarstrom	Kier & Associates
Fred Stertsman	So Coast Fishermens Association
Rich Taylor	Klamath Fishery Coalition
Lyle Timm	Oregon South Coast Fishermen
Tim Unterwegner	ODFW
Bud Ullman	Klamath Tribe
Jim Waldvogel	Sea Grant
Jim S. Welter	OSCF Enhancement
Jack West	Klamath National Forest
Lloyd Whaley	Port Commission
John Wilson	Klamath Council Tech Team
Patrick Wilson	Top Cat - Harbor Charters
Robert Will	Salmon River

ATTACHMENT 2

KLAMATH TASK FORCE AGENDA
NOVEMBER 6-7, 1991
BROOKINGS, OREGON

NOVEMBER 6

Administrative issues. (10:00-10:30)

Correction of draft notes and agenda.

Introduction of Trinity County representative.

Program evaluation and planning. (10:30-3:00)

Report on recent steps in planning the Columbia River Basin Fish and Wildlife Program. (Shake)

Evaluation of Klamath fishery restoration. (Alcorn)

Status of the FY1992 annual work plan.

CDFG portion. (Odemar)

FWS portion. (Alcorn)

Long range plan amendments: Status of the upper basin amendment. (Alcorn)

Action planning. (Franklin, Dave Mackett)

Task Force discussion of direction and schedule of action planning.

Development of the FY1993 annual work plan: Drafting the Request for Proposals. (Alcorn)

Public comment. (3:00-3:30)

Action. (3:30-4:30)

Task Force recommendations for action planning and annual work planning.

Executive Session. (7:00-8:00) Not open to the public.

NOVEMBER 7

Reports on forest management issues. (08:00-09:00)

Status of management planning, Klamath National Forest. (Holder)

Changes in California forest management regulations. (Sari Sommarstrom)

Reports on water management issues. (09:00-09:30)

Tribal water rights and instream flow needs. (Orcutt)

Reports on fish management issues. (09:30-11:30)

Fish disease survey, Trinity River. (Dr. Scott Foott)

Improved coordination among restoration programs, harvest managers, and fish hatcheries. (Chuck Lane)

Task Force discussion of participating in coordination improvement process.

Report of the fish stock identification committee. (Roger Barnhart)

Spring chinook recovery plan. (Jack West)

Reports on information management. (12:30-2:00)

Application of geographical information systems to the Klamath fishery restoration program. (Energy Resource Advocates)

Conference on decomposed granite sedimentation. (Sommarstrom)

Discussion of Trinity Program request for joint funding.

Trinity Restoration Program library. (Sommarstrom)

River reach file information system. (Iverson)

Process for tracking volunteer contributions. (Iverson)

New business. (2:00-2:30)

Administrative Issues. (2:30-3:00)

Next meeting.

Staff/subcommittee assignments.

Adjourn.

ATTACHMENT 3

1991/92 Fishery Restoration Grant Proposals
for the Klamath River Basin
Approved for Funding by the
Department of Fish and Game

CDFG Prop. Numb.	USFWS Proj. Numb.	Contractor	Stream	Project Title	Funding Source	Amount Approved	Comments
38	HR-14	USFS Klamath Nat'l Forest, Salmon River RD	SF Salmon River	Riparian Revegetation	P-70	9924	This proposal has been reduced to $9,924.00. This will need a budget amendment to show how personnel costs were derived. Proposition 70 funding approval letter dated 8/6/91 sent.
39	HR-11	USFS Klamath Nat'l Forest, Salmon River RD	SF Salmon River	South Fork Overwinter Habitat Enhancement	P-70	3432	Proposition 70 funding approval letter dated 8/6/91 sent.
40	HR-13	USFS Klamath Nat'l Forest, Salmon River RD	Salmon River et al	Cull Deck Wood Cover Structures	P-70	6557	Reduce to $6,557.00, by removing the evaluation part. Proposition 70 funding approval letter dated 8/6/91 sent.
55	HR-7	USFS Klamath National Forest	Grider Creek	Grider Creek Fish Habitat Improvement No. 2	P-70	20000	Proposition 70 funding approval letter dated 8/6/91 sent.
90	HR-22	Shasta Valley Resource Conservation District	Shasta River	Shasta River Riparian Fencing & Revegetation Project	P-70	17556	Reduced to $17,556, to reflect the $1.41 per foot fencing costs in Proposal 91. Proposition 70 funding approval letter dated 8/6/91 sent.
91	HR-21	Siskiyou Resource Conservation District	Scott River	Scott River Riparian Fencing & Revegetation Project	P-70	17556	Proposition 70 funding approval letter dated 8/6/91 sent.
92	HR-20	Siskiyou Resource Conservation District	Scott River	Streambank Protection Scott River	P-70	11550	Proposition 70 funding approval letter dated 8/6/91.

1991/92 Fishery Restoration Grant Proposals
for the Klamath River Basin
Approved for Funding by the
Department of Fish and Game

CDFG Prop. Numb.	USFWS Proj. Numb.	Contractor	Stream	Project Title	Funding Source	Amount Approved	Comments
119		Calif. Conservation Corps-Del Norte Center	Bluff, Scorpian et al	Klamath River Salmon & Steelhead Habitat Restoration	P-19	21627	This project was one of three (119, 120, and 122) which were selected for funding, for a total of $93,340, subject to CCC providing detailed proposals for work. The proposals would be evaluated by Region and Staff before they are placed on the prioity list. Original proposal 119 was approved for $24,029. The amended proposals received for 119 that were approved for funding (119A) only requested $21,627. It was given a rating of 80. Prop. 70 Subcommittee is willing to reconsider the Del Norte Center proposals, by conference call, as soon as details regarding the work to be done are described to the Department's satisfaction. Letter dated 8/28/91 sent, re: proposal referred to WCB for consideration. Mel Odemar checked with WCB and was informed that this project would receive Proposition 19 funding.
158	HR-9	USFS Klamath National Forest-Happy Camp RD	Indian Creek	Indian Creek Winter Habitat Restoration #1	P-70	22725	Proposition 70 funding approval letter dated 8/6/91 sent.

1991/92 Fishery Restoration Grant Proposals
for the Klamath River Basin
Approved for Funding by the
Department of Fish and Game

CDFG Prop. Numb.	USFWS Proj. Numb.	Contractor	Stream	Project Title	Funding Source	Amount Approved	Comments
159	HR-18	Shasta Valley Resource Conservation District	Shasta River	A.D. Banhart Cattle Exclusion Fencing Project	P-70	9698	Proposition 70 funding approval letter dated 8/6/81 sent.
160	HR-25	Fruit Growers Supply Company	Cottonwood Creek	Cottonwood Creek Cattle Exclusion Fencing Project	P-70	39456	Proposition 70 funding approval letter dated 8/6/81 sent.
161	FR-10	Paul & Jo Anne Luckey	Cold Creek	Eagle Ranch Steelhead Trout Rescue Rearing Facility	(P-99)	18473	This needs a letter to Banky Curtis saying that cause of problem needs to be addressed. This will be a one-time project. Staff believes that the diversion should be changed. Contract will have sunset clause stating this will be the last year of funding. Memo will be sent to Region 1 requesting information regarding permit for dam to learn if it was built and is being operated legally. Project rejected by staff, no funding source. Rejection letter dated 5/29/91 sent. Contractor was able to show that rearing project was closely associated to habitat improvement projects, thus, allowing us to consider it for proposition 99 funding. Letter dated 8/29/91 sent, re: no prop 99 funds available.

Will NOT be funded though approved: No Funds Available

1991/92 Fishery Restoration Grant Proposals
for the Klamath River Basin
Approved for Funding by the
Department of Fish and Game

CDFG Prop. Numb.	USFWS Proj. Numb.	Contractor	Stream	Project Title	Funding Source	Amount Approved	Comments
162	FP-15	Dept. of Fish and Game Region 1	Kidder Creek	Greenview Diversion Screening Project	P-70	47476	Prior to funding, Region 1 must confirm that purchase of water rights for diversion is taking place. The Klamath River Task Force may have this information. Prop. 70 funding is conditional on ascertaining whether the water right for this diversion can be purchased by DFG. The Prop. 70 funds are recommended for the project only if the water rights cannot be purchased. If they can be purchased, then the Prop. 70 monies recommended for the project can be used to help defray the costs of the water rights purchase. Memo dated 8/12/91 re: Prop 70 approved funding to build screen or help purchase water rights sent.

*** Total ***

246030
- 18473
227,557

ATTACHMENT 3 (Cont)

1991/92 Fishery Restoration Grant Proposals
for the Klamath River Basin
NOT Approved for Funding by the
Department of Fish and Game

CDFG Prop. Numb.	USFWS Proj. Numb.	Contractor	Stream	Project Title	Funding Source	Amount Approved	Comments
21	HR-10	Klamath National Forest, Salmon River RD	Crawford Creek	Crawford Creek Road Improvement	None	0	This was rejected by Region 1. Rejection letter dated 5/22/91 sent.
41	HR-12	Klamath Nat'l Forest, Salmon River RD	Mainstem Salmon River	In Pool Boulder Cover Structure	None	0	This was rejected by Region 1, Phil Warner. Rejection letter date 5/22/91 sent.
59	FR-4	Orleans Rod and Gun Club	To be determined by DFG	Orleans Community Rescued Steelhead Rearing Project	None	0	Staff rejected proposal, no funding source. Rejection letter dated 5/29/91 sent.
60	FR-5	Art Frazier	Hammel Creek	Hammel Creek Chinook Hatching/Rearing Project	None	0	Conditional rejection by staff based on funding availability. Letter dated 5/29/91 sent. This was funded by the Federal Government, per the recommendation of the Klamath River Task Force, according to Nat Bingham. Letter dated 9/11/91 sent, re: no funding approval.
88	FR-7	Northern Calif. Indian Development Council Inc.	Fall Creek	Fall Creek Rearing Pond Project	None	0	Conditional rejection by staff based on funding availability. Letter dated 5/29/91 sent. Not recommended by Prop. 70 or Salmon Stamp. Nat believes that the project will receive Federal funding on the recommendation of the Klamath River Task

1991/92 Fishery Restoration Grant Proposals
for the Klamath River Basin
NOT Approved for Funding by the
Department of Fish and Game

CDFG Prop. Numb.	USFWS Proj. Numb.	Contractor	Stream	Project Title	Funding Source	Amount Approved	Comments
							Force. Letter dated 9/11/91 sent, re: no funding approval.
89	FR-6	Northern Calif. Indian Development Council Inc.	Elk, Indian, Grider et al	Klamath River Yearling Chinook Salmon Rearing Prject	None	0	Funding is subject to contractor's obtaining all necessary State permits. Conditional rejection by staff based on funding availability. Letter dated 5/29/91 sent. Not recommended by Prop. 70 or Salmon Stamp. Nat stated that this project would receive Federal funding, if native broodstock is used. Letter dated 9/11/91 sent, re: no funding approval.
93	HR-19	Siskiyou Resource Conservation District	Miner's Creek	Paradise Hollow Creek Restoration	None	0	Rejected by Region 1. Rejection letter dated 5/30/91 sent.
94	FP-13	Clearwater BioStudies, Inc.	Shasta River & Tribs	Water Diversion Catalog for Streams Utilized by Salmon	None	0	Rejected by staff as a study. Rejection letter dated 5/29/91 sent.
95	FP-14	Clearwater BioStudies, Inc.	Scott River & Tribs	Water Diversion Catalog for Streams Utilized by Salmon	None	0	Rejected by staff as a study. Rejection letter dated 5/23/91 sent.
118		Calif. Conservation Corps-Del Norte Center	Hunter, Tarup, WF Blue	Lower Klamath Salmon/Steelhead Habitat Restoration Proj	None	0	FINAL DECISION--See notes on 119 FIRST DAY OF MEETINGS--Needs to have

1991/92 Fishery Restoration Grant Proposals
for the Klamath River Basin
NOT Approved for Funding by the
Department of Fish and Game

CDFG Prop. Numb.	USFWS Proj. Numb.	Contractor	Stream	Project Title	Funding Source	Amount Approved	Comments
							individual projects submitted, new budgets to reflect the work. Needs new rating based on amended proposal.
156	HR-32	Gary Hegler	Lumgrey, Empire Creeks	Natural Ground Water & Thermal Rehabilitation Ponds	None	0	Rejected by Region 1. Rejection letter dated 5/30/91 sent.
157	HR-8	Klamath National Forest-Happy Camp RD	Indian Creek	Indian Creek Riparian Restoration #1	None	0	Rejected by Region 1. Rejection letter dated 6/3/91 sent.
*** Total ***						0	

ATTACHMENT 4

Task Force
Tasks Identified in the 1992 Evaluation Report

1) Task Force members should monitor the State Forest Practice Rules and the US Forest Service Land Management Plans. (2.A.4.b)

2) All members should ensure that project data is added to the Klamath Information System. (2.A.1.d)

3) Work with universities to design studies on impacts of mining to anadromous fish habitat. (2.B.2)

4) Tribal representatives should keep the Task Force informed on Klamath River instream flow issues. (2.E.2.b)

5) Provide guidance to KRFRO on many policies. (3.1.b, 3.7.c, 3.9.a, 3.10.a, 3.14, 4.3.b, 4.8, 5.A.1.b, 6.2.f, 6.2.i, 7.8.b, 7.10.c,d,e, 7.11.a)

6) Monitor each of the Plan's major components to ensure policies are being implemented. (7.3)

7) Review staffing needs every 2 to 5 years. (7.5.a.1)

8) Chairman should counsel with TWG chairman to discuss upcoming work load. (7.5.a.2)

9) Utilize TWG and ad hoc committees to help implement the Plan. (7.5.c)

10) Develop a long-term Memorandum of Agreement with agencies and tribes to ensure effective coordination. (7.9.b)

11) Committees of the Task Force, Management Council, and the Trinity River Task Force should counsel annually. (7.9.d)

KRFRO Staff
Tasks Identified in 1992 Evaluation Report

1) Prepare letters of correspondence.

2) Seek additional funding from:
   - o 319(h) grant program. (2.C.1.b)
   - o Challenge grant program.
   - o Farm Bill Advisor. (wetland development)
   - o Other sources.

3) Prepare scopes of work for:
   - o Workshops to further communication between users. (2.B.2.a, 2.F.1.i)
   - o Develop minimum mining reclamation standards. (2.B.2.d)
   - o Inventory abandoned mining sites. (2.B.2.f)
   - o Develop instream flow studies on Klamath and Scott Rivers. (2.E.1.c, 2.F.1.j.)
   - o Develop an inventory of water conservation practices. (2.F.1.b)
   - o Study the feasibility of operating weirs to monitor coho and steelhead. (4.3.d)
   - o Determine the impacts of rescued steelhead rearing operations on native populations. (3.11)

4) Publicize availability of final reports. (4.4.c)

5) Develop poaching prevention curricula. (4.5.a)

6) Work with the Trinity River Task Force and California Department of Fish and Game to develop hatchery operation strategies at TRH and IGH.

7) Research literature to determine habitat needs of juvenile and adult salmonids to conclude appropriate stocking requirements of tributaries. (5.B.3.a, 5.B.3.b, 5.B.3.c)

8) Explore means to improve the cost effectiveness of small scale rearing programs. (5.B.4)

9) Work with Cooperative Extension offices to develop riparian restoration programs. (6.2.a)

10) Remain active in local angler groups, resort owners, county fish and game advisory committees. (6.2.d)

11) Organize a course for Task Force and TWG attendance on "Systematic Development of Informed Consent". (7.2.a)

12) Maintain files for other funding sources, and make them available to the public. (7.6.c)

13) Develop Klamath Information System. (7.7.d)

14) Revise and improve the current proposal writing guidance packet. (7.10.b)

Technical Work Group
Tasks Identified in the 1992 Evaluation Report

1) Review USFS National Forest Land Management Plans. (2.A.1.b)

2) Research laws of other western states that have instituted changes in water law. (2.F.1.e)

3) Identify areas in the Klamath basin in which to focus attention on sediment reduction efforts and enforcement of clean water laws. (3.2.c)

4) Develop "technically sound" habitat restoration plans benefitting stocks of special concern. (3.3)

5) Comment on the Lewiston Reservoir release strategy developed by the USFWS-FWE, scheduled for circulation in 1992. (3.4)

6) Review the French Creek erosion site study and make recommendations for implementation. (3.7.b)

7) Evaluate habitat enhancement proposals for adequacy. (3.12 a-c, e-g)

8) Identify and prioritize areas needing habitat restoration work. (4.7)

9) Work with CDFG in developing hatchery operation strategies. (5.A.1.a)

10) Develop procedures for trapping, rearing, incubating, and transferring fish in small scale pond programs. (5.B.2.a)

11) Develop methods for evaluating rearing program success. (5.B.2.e)

12) Assess appropriate stocking levels, habitat quality, and spawning escapement. (5.B.3.a-c)

13) Assess ways to improve cost effectiveness of rearing pond programs. (5.B.4)

14) Evaluate the effectiveness of the Technical Work Group. (7.1.b)

15) Develop 3-year action plan. (7.5.c and 7.10.a)

Agencies
Tasks Identified in the 1992 Evaluation Report

CDFG:

1) Evaluate impacts of suction dredge mining. (2.B.1.b)

2) Close some Klamath River tributaries to "trout" fishing. (4.4.d)

3) Work to alleviate the Horse Creek diversion problem. (3.10.d)

USFS:

1) Seek congressional funding for the Salmon River spring chinook recovery project.

USFWS:

1) Work with the National Park Service to develop interpretive displays at high visitor use areas such as the Highway 101 and 5 crossings.

ATTACHMENT 5

FEDERALLY-FUNDED WORK PLAN AND
BUDGET, FISCAL YEAR 1989
KLAMATH BASIN FISHERY RESTORATION
files:89wrkpln.dbf,89wrkpln.ndx, 89wp2.frm

** (0)ADMINISTER PROGRAM				
(0)ADMINISTER PROGRAM	(0.1)OPERATE KLAMATH FIELD OFFICE	168760	USFWS	
(0)ADMINISTER PROGRAM	(0.2)REGIONAL OFFICE OVERHEAD	50000	USFWS	
** Subtotal **		218760		
** (1) PLAN PROGRAM				
(1) PLAN PROGRAM	(1.1) PLAN AND ENV. ASSESSMENT	140135	KIER	750 copies printed, approximately 450 distributed.
** Subtotal **		140135		
** (2) GET INFORMATION				
(2) GET INFORMATION	(2.12) TAGGING NEEDS FOR TIME/AREA MANAGEMENT	36400	HSU	Agreement closed.
(2) GET INFORMATION	(2.21) ESTIMATE FALL CHINOOK ESCAPEMENT	41700	CDFG	Agreement amended to include FY1991 work.
(2) GET INFORMATION	(2.22) FALL CHINOOK ESCAPEMENT, LOWER KLAMATH	24000	USFWS	Closed.
(2) GET INFORMATION	(2.23) FALL CHINOOK ESCAPEMENT, BLUE CREEK	43800	USFWS	Closed.
(2) GET INFORMATION	(2.25) HYDROACOUSTIC WEIR, SALMON RIVER	21500	CDFG	Project complete.
(2) GET INFORMATION	(2.31) STEELHEAD ESCAPEMENT, SELECTED TRIBS	73400	USFS	Agreement closed.
(2) GET INFORMATION	(2.41) HABITAT TYPE, STANDING CROP, 125 MI.STREAM	75000	USFS	Agreement closed.
(2) GET INFORMATION	(2.42) TYPE HABITAT, PLAN REHAB, PINE CREEK	31905	HVBC	Project complete.
(2) GET INFORMATION	(2.43) JUVENILE PRODUCTION, LOWER KLAMATH TRIBS	0	USFWS	Agreement closed.
(2) GET INFORMATION	(2.44) HABITAT AVAILABLE FOR FALL CHINOOK, BLUE CR	0	USFWS	Agreement closed.
(2) GET INFORMATION	(2.51) TRAP OUTMIGRANTS, LOWER KLAMATH RIVER	27200	USFWS	Agreement closed.

FEDERALLY-FUNDED WORK PLAN AND
BUDGET, FISCAL YEAR 1989
KLAMATH BASIN FISHERY RESTORATION
files:89wrkpln.dbf,89wrkpln.ndx, 89wp2.frm

(2) GET INFORMATION	(2.61) ANALYZE RECORDS, FEASIBILITY OF AUGMENT.	36000	CAL-DWR	Final report expected 11/30/91.
** Subtotal **		410905		
** (3) EDUCATE				
(3) EDUCATE	(3.1) EDUCATION PROJECT	67000	DHIGGINS	Program complete.
(3) EDUCATE	(3.2) PUBLIC INFORMATION/INTERPRETATION	20000	USFWS	Program complete.
** Subtotal **		87000		
** (4) MANAGE HABITAT				
(4) MANAGE HABITAT	(4.14) SEDIMENT BUDGET, SCOTT SUBBASIN	50000	SISK RCD	Agreement closed.
(4) MANAGE HABITAT	(4.15) CONTROL BANK EROSION, YREKA CREEK	10000	YREKA	Agreement closed.
(4) MANAGE HABITAT	(4.25) EVALUATE EXISTING HABITAT IMPROVEMENTS	0	USFS	Final billing complete.
** Subtotal **		60000		
** (5) ARTIF. PROPAGATION				
(5) ARTIF. PROPAGATION	(5.11) EVALUATE PRESMOLT CHINOOK RELEASE, IGSFH	56600	CDFG	Agreement amended to include FY1991 work.
(5) ARTIF. PROPAGATION	(5.12) EVALUATE POND REARING OF FALL CHINOOK	26600	CDFG	Agreement amended to include FY1991 work.
** Subtotal **		83200		
*** Total ***		1000000		

KLAMATH FISHERY RESTORATION PROGRAM
FEDERAL WORK PLAN, FISCAL YEAR 1990
files: 90fedwp.dbf, catprpsr.ndx,
90wp2.frm

ATTACHMENT 5 (Cont)

CATEGORY	PROJECT	COOPERATOR	PROJECT DESCRIPTION	COST	STATUS
** ADMINISTRATION					
ADMINISTRATION	90 0.1	USFWS	OPERATE KLAMATH FIELD OFFICE	240817	
ADMINISTRATION	90-0.2	USFWS	REGIONAL OFFICE OVERHEAD	93000	
** Subtotal **				333817	
** ARTIF. PROPAG.					
ARTIF. PROPAG.	90-5.1	NCIDC	LATE FALL CHINOOK STOCKING, YUROK RESERVATION	109653	Agreement closed.
ARTIF. PROPAG.	90 FR/117	NCIDC	REAR CHINOOK IN MID-KLAMATH PONDS TO YEARLING SIZE	26000	Agreement closed.
** Subtotal **				135653	
** EDUCATE					
EDUCATE	90 3.21	CHICO STATE U.	QUESTIONNAIRE SURVEY	18265	Questions developed. Survey expected 11/91, after OMP apprv
EDUCATE	90-3.1	DIANE HIGGINS	CLASSROOM CURRICULUM, TEACHER TRAINING	68040	Draft curriculum rec'd. Final curriculum expected 10/91.
EDUCATE	90-3.2	USFWS	PUBLIC INFORMATION	39648	Program complete.
** Subtotal **				125953	
** GET INFORMATION					
GET INFORMATION	90 FP-1	KARUK TRIBE OF CALIF	ESTIMATE KARUK SUBSISTENCE HARVEST	15295	Project complete. $3,947 to be spent on FY91 project work.
GET INFORMATION	90-2.71	SHASTA VALLEY RCD	SHASTA R. FISHERIES WATER QUALITY PROJECT	24470	Project complete.
GET INFORMATION	90-2.41	USFS SALMON R RD	SALMON SUBBASIN HABITAT PRODUCTIVITY SURVEY	45247	Field work complete. Final report expected 12/91.
GET INFORMATION	90-2.21	USFS SALMON R RD	SPAWNING GROUND UTILIZATION SURVEYS	81568	Field work complete. Final report expected 12/91.
GET INFORMATION	90-2.52	USFS SIX RIVERS	CAMP CREEK DOWNSTREAM MIGRANT STUDY	14993	Field work underway. Final report expected 2/92.
GET INFORMATION	90-2.23	USFWS	BLUE CREEK STUDIES	53400	Annual report expected 1/92.

KLAMATH FISHERY RESTORATION PROGRAM
FEDERAL WORK PLAN, FISCAL YEAR 1990
files: 90fedwp.dbf, catprpsr.ndx,
90wp2.frm

CATEGORY	PROJECT	COOPERATOR	PROJECT DESCRIPTION	COST	STATUS
GET INFORMATION	90-2.22	USFWS	STUDIES IN SMALL TRIBS, LOWER KLAMATH	24000	Annual report expected 1/92.
GET INFORMATION	90-2.51	USFWS	TRAP OUTMIGRANTS, LOWER KLAMATH RIVER	27200	Annual report expected 1/92.
** Subtotal **				286173	
** MANAGE HABITAT					
MANAGE HABITAT	90 2.42	HOOPA VALLEY BC	PINE CR. HABITAT EVALUATION/IMPROVEMENT ASSESS.	31188	Final report expected 11/91.
MANAGE HABITAT	90-4.3	PSMFC	IMPROVE MAINTENANCE OF DIVERSION SCREENS	23911	Agreement Closed.
MANAGE HABITAT	90-4.2	SISKIYOU RCD	SCOTT R. BASIN SEDIMENT STUDY, PHASE II	30768	Final report expected 11/91.
** Subtotal **				85867	
** PLAN PROGRAM					
PLAN PROGRAM	90-1.1	KIER ASSOCIATES	AMEND LONG-RANGE PLAN TO INCLUDE UPPER BASIN ISSUE	30149	12/15/91 is closing date for public comment on draft doc.
** Subtotal **				30149	
*** Total ***				997612	

KLAMATH FISH[illegible]ESTORATION PROGRAM
FEDERAL WORK PLAN, FISCAL YEAR 1991

files: 91fedwp.dbf,ndx,frm

ATTACHMENT 5 (Cont)

PROJECT NUMBER	COOPERATOR	LOCATION	PROJECT DESCRIPTION	COST	COMMENT
** CATEGORY: Education					
E 8	U.S. Fish & Wildlife Service	Basinwide	Public Information Program.	40000	Ongoing coordination of public communication projects and education contracts.
E-3	USFWS - Contract		Develop education program for school children.	67500	Amended FY1990 contract to include $51,000 of grade 9-12 curriculum development.
E-1	USFWS - Contract	Kidder Creek	Educational field study of fish requirements and riparian restoration.	2500	Underway. Final report expected 12/91.
E-4	USFWS - Contract		Portable information display for Klamath Fishery Restoration Program.	7500	Outline prepared. Deliverable expected 12 91.
** Subtotal **				117500	
** CATEGORY: Fish Protection					
FP/193	CDFG	Shasta River	Modify and repair Shasta River fish counting facility.	17777	Project modified to reduce the scope of work. Funding reduced by $5,862. Project completed 10/91.
FP-1	Karuk Tribe of California	Klamath River, Ishi-Pishi Falls	Estimate, by species, Karuk subsistence harvest.	19537	Project modified to reduce funding by $3,947. Work underway. Final report expected 12/91.
FP-3	USFWS, FAO Arcata	Lower tributaries to Klamath River	Estimate spawning, juvenile production, habitat.	40500	Field work complete. Final report being prepared, expected 3/92.
FP-4	USFWS, FAO Arcata	Blue Creek	Estimate chinook stock status and potential for enhancement.	57400	Field work complete. Final report being prepared, expected 3/92.
FP-5	USFWS, FAO Arcata	Klamath River at Big Bar.	Monitor juvenile salmonid emigration.	2750	Field work complete. Final report being prepared, expected 3/92.
FP-6	USFWS, FAO Arcata	Lower Klamath River and estuary.	Estimate juvenile fish standing crop and outmigration.	27750	Field work complete. Final report being prepared, expected 3/92.
** Subtotal **				165714	
** CATEGORY: Fish Restoration					
FR-3	CDFG	Klamath River, several tributaries.	Estimate adult contribution of pond reared salmon.	27600	CWT tagging complete. Final report expected 11/91.
FR-1	NCIDC	Klamath River, Yurok reservation	Late run fall chinook accelerated stocking program.	99818	Fish reared in Hunter Creek were released in late September. Fish reared in Cappell and Pecwan facilities released after rains increase flows in those creeks. Final report expected 1/92.

KLAMATH FISHERY RESTORATION PROGRAM
FEDERAL WORK PLAN, FISCAL YEAR 1991

files: 91fedwp.dbf,ndx,frm

PROJECT NUMBER	COOPERATOR	LOCATION	PROJECT DESCRIPTION	COST	COMMENT
FR-2	NCIDC	Klamath River, Yurok reservation	Late run fall chinook gillnet capture project	33498	Project completed 1/91. Agreement amended to increase funding by $10,700, to cover start-up expenditures in 1992 season.
** Subtotal **				160916	
** CATEGORY: Habitat Protection					
HP-1	Energy and Resource Advocates	Klamath Basin, Salmon River & west.	Remote sensing and GIS feasibility analysis.	36830	Received final report and oral presentation at 11/91 Task Force meeting.
HP-3	HSU/CCFRU	Salmon River	Estimate spawning and rearing habitat for spring chinook and summer steelhead.	10281	Field work underway. Progress report expected 12/91.
HP-10	Siskiyou RCD	Scott River, Scott Valley portion.	Inventory riparian zone.	7054	Survey work underway. Final report expected 12/91.
HP-7	USFS, Klamath NF	Salmon River, South Fork	Conduct watershed improvement needs inventory (WINI).	18500	Field work complete. Final report expected 12/91.
HP-9	USFS, Klamath NF	Salmon River Subbasin	Analyze sediment delivery.	38190	Field work complete. Final report expected 12/91.
** Subtotal **				110855	
** CATEGORY: Habitat Restoration					
HR 15	CDFG	Klamath River, various tributaries.	Provide one work year of diversion screen maintenance.	27589	Underway. Final report expected 2/92.
HR/065	Hoopa Valley Tribal Council	Pine Creek	Control or prevent erosion of sediment into Pine Creek.	61811	Field work begun 10/91. Final report expected 1/92.
HR/112	USFS, Klamath NF	Salmon River, North & South Forks.	Provide native plants to reseed riparian zones.	13957	Seed collection complete. Project to plant seedlings is funded in FY1992 by CDFG. Final report expected 12/91.
** Subtotal **				103357	
** CATEGORY: Program Administration					
PA 3	U.S. Fish & Wildlife Service		Operation of Klamath Fishery Resource Office.	262000	Funding year complete.
PA-4	U.S. Fish & Wildlife Service		USFWS Regional Office overhead.	80000	Funding year complete.
** Subtotal **				342000	
*** Total ***				1000342	

KLAMATH FISHERY RESTORATION PROGRAM
FEDERAL WORK PLAN, FISCAL YEAR 1992

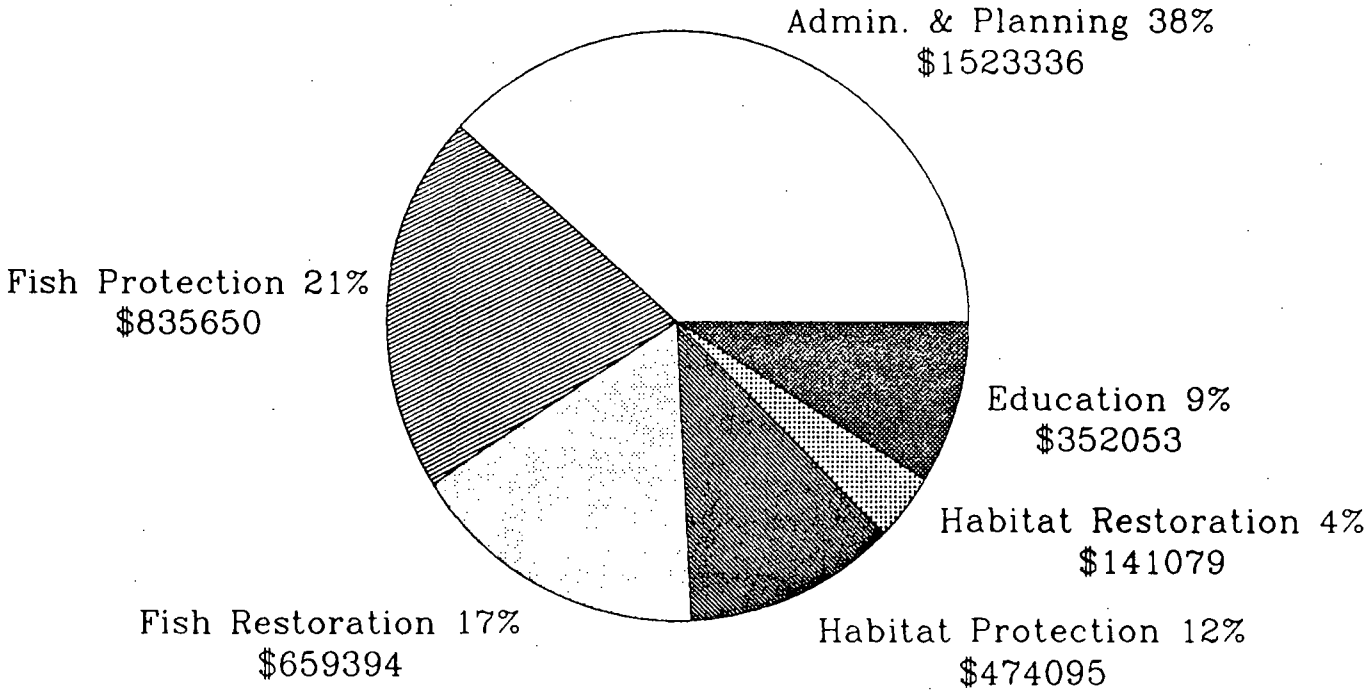
ATTACHMENT 5 (Cont)

PROJECT NUMBER	COOPERATOR	LOCATION	PROJECT DESCRIPTION	COST	COMMENT
** CATEGORY: Education					
E-14	Calif. Salmon and Steelhead Rest.	Northern Calif.	10th Annual Conference	2500	Funding to be administered with a purchase order.
E- 6	Diane Higgins	Basinwide	Curriculum development for grades 9-12.	17500	$50,000 was amended to the FY1990 contract to cover most of the 9-12 grade tasks. Remaining tasks will be covered by $17,500 of FY1992 funds.
E-13	Klamath Forest Alliance	Salmon River	Poaching prevention workshop.	1600	Funding to be administered with a purchase order.
** Subtotal **				21600	
** CATEGORY: Fish Protection					
FP-16	Calif. Dept. of Fish and Game	Scott and Shasta Valleys	Temporary help for the Yreka Screen shop.	29118	Project increased by $1,529 because of increased benefits and overhead expenses. Draft agreement sent to cooperator 10/91.
FP- 8	Coastal Resources Research Group	Salmon River	Population Differentiation of Spring and Fall Chinook.	16109	Draft agreement sent to cooperator 10/91.
FP-11	Hoopa Valley Tribal Council	Klamath River below Trinity River	Estimate population size and range of green sturgeon.	14058	Cooperative agreement in preparation.
FP-12	Hoopa Valley Tribal Council	Pine Creek	Monitoring outmigrating salmonids.	25000	Cooperative agreement in preparation
FP- 7	USFWS- Fish Health Center	Basinwide	Disease Survey of Salmonid Smolts	10105	Draft Memorandum of Understanding (MOU) sent to proposer 10/91. Proposer may have difficulty getting juvenile fish samples on lower mainstem because the mainstem seining program (CCFRO) was not funded for FY1992.
FP- 2	USFWS-CCFRO	Blue Creek	Status of Salmon and Steelhead Stocks of Blue Ck.	58729	Draft MOU sent to CCFRO 10/91.
FP- 4	USFWS-CCFRO	Klamath River at Big Bar	Monitoring of Yearling Salmonid Emigration.	3000	Draft MOU sent to CCFRO 10/91.
FP- 5	USFWS-CCFRO	Basinwide	Age composition/scale analysis of Klamath fall chinook.	5450	Draft MOU sent to CCFRO 10/91.
** Subtotal **				161569	
** CATEGORY: Fish Restoration					
FR- 5	Art Frazier	Hammel Creek	Chinook hatching/rearing project	8074	Funding is for 1993 fish rearing season. Funding will be administered with a purchase order.

KLAMATH FISHERY RESTORATION PROGRAM
FEDERAL WORK PLAN, FISCAL YEAR 1992

PROJECT NUMBER	COOPERATOR	LOCATION	PROJECT DESCRIPTION	COST	COMMENT
FR- 2	NCIDC	Lower Klamath River	Late run fall chinook gillnet capture.	13184	Project has begun. Agreement funding reduced by $10,700 because of surplus FY1991 money.
FR- 3	NCIDC	Lower Klamath River Tributaries	Fish rescue and rearing project.	2750	Draft cooperative agreement sent to cooperator 10/91.
FR- 6	NCIDC	Mid-Klamath River tributaries	Pond rearing program for mid-Klamath River chinook	101712	Draft cooperative agreement sent to cooperator 10/91.
FR- 9	NCIDC	Lower Klamath River	Accelerated Stocking Program, Late Fall Run Chinook	133050	Draft cooperative agreement sent to cooperator 10/91.
FR- 1	Orleans Rod and Gun Club	Orleans	Upgrade fish rearing facility	9550	Draft cooperative agreement sent to cooperator 10/91. Construction work underway.
FR- 4	Orleans Rod and Gun Club	Orleans	Rescued steelhead rearing project	11297	Draft cooperative agreement sent to cooperator 10/91.
** Subtotal **				279625	
** CATEGORY: Habitat Protection					
HP- 1	Hoopa Valley Tribal Council	Pine Creek	Sediment monitoring	38662	Cooperative agreement in preparation.
** Subtotal **				38662	
** CATEGORY: Habitat Restoration					
HR-24	NCIDC	Tarup Creek	Migration barrier removal.	10192	Draft cooperative agreement sent to cooperator 10/91
HR-17	Shasta RCD	Shasta River	Easton bank protection and riparian fencing.	7190	Draft cooperative agreement sent to cooperator 10/91.
HR-19	Siskiyou RCD	Paradise Hollow, French Ck Drainage	Cattle exclusion fencing.	10340	Draft cooperative agreement sent to cooperator 10/91.
** Subtotal **				27722	
** CATEGORY: Program Coord. and Admin.					
PA-6	Great Northern Corporation	Shasta River	Shasta River CRMP Field Projects Coordinator	24785	Draft cooperative agreement sent to cooperator 10/91.
PA-5	Shasta Valley RCD	Shasta River Basin	Operating expenses for Shasta Valley CRMP	2090	Draft cooperative agreement sent to cooperator 10/91.
PA- 1	Technical Work Group	Basinwide	Three year action plan	26600	
PA-4	USFWS-KRFRO	Basinwide	Program Coordination and Implementation	405000	
** Subtotal **				458475	
*** Total ***				987653	

Klamath River Restoration Program
Cumulative Funding, FY1989–FY1992



Prepared November, 1991.

ATTACHMENT 6

Proposed 1993 Project Selection Process

- Step 1 – Evaluation report prepared by KRFRO staff.
- Step 2 – Draft RFP prepared using evaluation report info.
- Step 3 – Mail RFP to interested parties by 2/1/92.
- Step 4 – Close of project submittal period, 4/1/92.
- Step 5 – Proposals mailed to TWG members by 4/15/92.
- Step 6 – Identify 5–member panel of Federal employees.
- Step 7 – KRFRO will brief panel, prior to TWG meeting.
- Step 8 – TWG meeting to discuss proposals, 5–15–92.

Plate 1

ATTACHMENT 7

Proposed 1993 Project Selection Process

- Step 9 – KRFRO prepares ranked list of proposals.
- Step 10 – Task Force meets to discuss ranked list, and make final recommendations.
- Step 11 – USFWS–CGS reviews recommendations.

Plate 2

ATTACHMENT 8

Klamath Management Zone Fisheries Coalition

• Russ Crabtree, Chairman
• Rich Taylor, Co-Chairman

Oregon Representative:
• Howard Teague, Gold Beach

California Representative:
• Ken Neel, Trinidad

Port of Port Orford
Port of Gold Beach
Port of Brookings Harbor
Crescent City Harbor District
Trinidad Bay
Humboldt Bay Harbor District

101 Citizen's Dock Road • Crescent City, CA 95531
(707) 464-6174

November 4, 1991

Klamath River Basin Task Force
P. O. Box 1006
Yreka, CA 96097-1006

Re: Introduction of the Klamath Management Zone Fisheries Coalition

Dear Task Force Members:

The purpose of this letter is to introduce the Klamath Management Zone Fisheries Coalition. The Coalition is a bi-state organization comprised of six ports from Humboldt Bay to Port Orford and associated Chambers of Commerce. Meetings are held biweekly to discuss courses of action and to reach mutual consensus on fishery related concerns.

The Coalition is optimistic that, in time, it will be looked upon as a sounding board for input and consultation by the regulatory agencies responsible for managing the salmon resource within the zone. The mission of the Coalition is to: "Promote the maximum economic well-being of the KMZ Communities through the practice of sound conservation policies". This translates to improving the economy of ports and communities in Northern California and Southern Oregon.

A preliminary list of the Coalition's objectives are:

1. Sustain, at a minimum, the ocean salmon sportfishing season from Memorial Day to Labor Day.

2. Improve the commercial salmon fishing troll options within the Klamath Management Zone.

3. Secure uniform bi-state sportfishing regulations within the Klamath Management Zone.

4. Allow only domestic shore-based whiting fisheries within the Klamath Management Zone.

5. Achieve marketability of the Klamath Management Zone Communities by continuity of the season.

In closing, the Coalition believes that good salmon management must be a flexible process over time and is committed to restoration and enhancement of the salmon resource for the benefit of all user groups.

Thank you for the opportunity to comment.

Sincerely,

Russ Crabtree, Chairman
Klamath Management Zone Fisheries Coalition

RC/mem

c: Senator Bill Bradbury
Representative Walt Schroeder
Curry County Board of Commissioners
Klamath Management Zone Ports
ODF&W, Randy Fisher and Jim Martin
OCZMA, Jay Rasmussen
OPPA, Paget Engen

PROPOSAL

REDUCE THE PRODUCTION OF CHINOOK SALMON BY AT LEAST ONE THIRD AT IRONGATE AND TRINITY HATCHERIES.

REAR TO FULL TERM SMOLT. FOR LATER RELEASE.

ONE HALF OF PRODUCTION TO BE TRUCKED FOR LOWER RIVER RELEASES IN LOWER TEN MILES AND ESTUARY.

REASON: TO INCREASE THE SURVIVAL OF HATCHERY AND NATURAL STOCKS.

PRO'S

1. INCREASE PERCENT OF HEALTHY HATCHERY SMOLT ENTERING THE OCEAN.

2. INCREASE SURVIVAL OF NATURAL SMOLT WITH LESS COMPETITION WITH HATCHERY SMOLT DURING DOWNSTREAM MIGRATION.

3. REDUCE LOSS DUE TO NATURAL PREDATION ON DOWNSTREAM MIGRATION FROM HATCHERIES.

4. REDUCE LOSS DUE TO SPORT FISHING MORTALITIES DURING DOWNSTREAM MIGRATION.

5. PRODUCE LARGER. HEALTHIER SMOLT, WITH GREATER SURVIVABILITY.

6. SHORT-TERM PRODUCTION OF MORE ADULT SALMON FOR BOTH SPORT AND COMMERCIAL OCEAN FISHERES.

7. SHORT-TERM PRODUCTION OF MORE ADULT RETURNING SALMON FOR IN-RIVER SPORT AND INDIAN FISHERES.

8. INCREASE IN HATCHERY RETURNS WILL DILUTE TAKE OF NATURAL STOCKS.

ALL OF THIS COULD TAKE PLACE IN A SHORTER TIME-FRAME THAN THE PRESENT HATCHERY PROGRAM.

POSSIBLE DRAWBACKS:

1. COST AND LOGISTICS IN TRANSPORTATION FOR TRUCKING SMOLT TO LOWER KLAMATH.

2. INCREASED FOOD COST FOR REARING TO FULL-TERM SMOLT.

FOOD COSTS COULD BE OFFSET BY THE REDUCTION OF PRODUCTION BY ONE THIRD.

The River Reach File Interfaces With Ma[illegible]tional Databases

Linking monito[illegible]g and locational data to RF3's hydrologic connectivity helps managers address questions like: *"Are downstream water quality conditions in compliance with state standards?" or "Are there any industrial dischargers upstream of a proposed drinking water intake?"*

RF3's graphical interface supports access to many of EPA's water information management systems:

- STORET
- IFD (Industrial Facilities Discharge File)
- PCS (Permit Compliance System)
- WBS (Water Body System)
- USGS DLG Transportation Data
- USGS National Water Information System (NWIS) (under development)
- County Boundaries

RF3 also provides file export capabilities to facilitate analysis:

- User-Specified Datafiles
- ArcInfo Formatted Export Files
- "Flat File" Export Files

RF3 Access and Equipment Needs

RF3 can be accessed by the user friendly systems: MDDM (Mapping and Data Display Manager) and RFMS (Reach File Management System). To access the RF3 system, the following needs to be done:

- Contact the Reach File Coordinator for a user identification.
- Access to the mainframe is gained through the EPA National Telecommunication Network which links EPA Regional and State Offices with NCC.

To link to the mainframe, the following equipment is needed:

- IBM Graphics Terminal (i.e. 3179, 3179G, 3270 PC-AT/G, 3270 PC-AT/GX or a PC that has been upgraded to the 3270 emulation and APA Graphics)
- A pointing device i.e. mouse or digitizing tablet is optional but not necessary

User Support

The River Reach File [illegible]nented and user support is available.

- The Technical Description of the Reach File and Support Software User's Guides are available from EPA Office of Water or can be printed from the EPA IBM mainframe.

Other documents that are available:

- Description of Basin Coverage
- Access of RF3 on EPA Mainframe and Sample Products
- RF3 File Layouts and Specifications
- MDDM User's Guide
- RFMS User's Guide

- RF3 support is available for ArcInfo applications through EPA's GIS group.

- The RF3 ArcInfo formatted file can be downloaded via the Geographic Resources Information and Data System *(GRIDS)* or through the RF3 Support Software called *RFMS*, Reach File Management System.

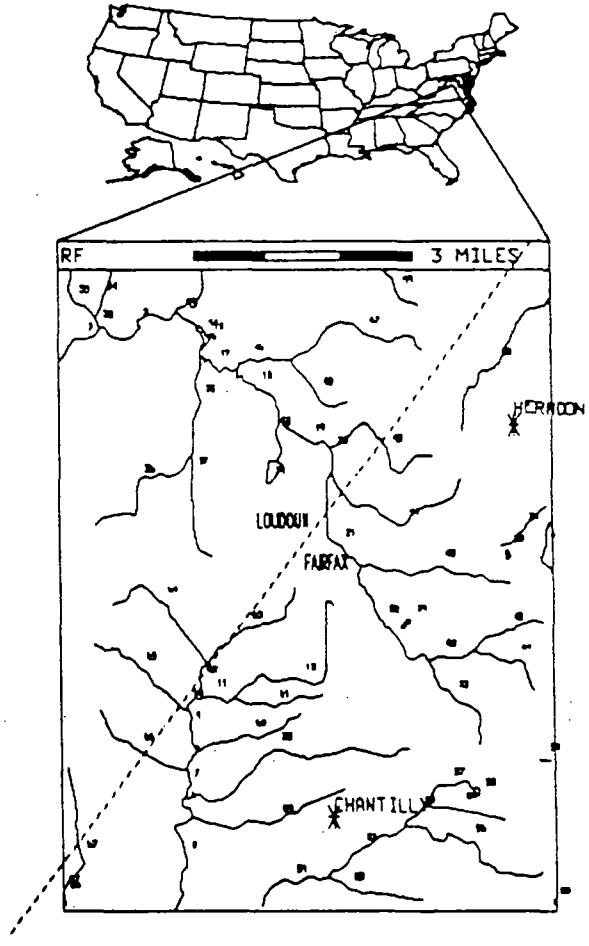
For more information, copies of the Technical Support Documents and User's Guides, contact the Regional Reach File Coordinator, or EPA Headquarters.

Tom Pandolfi
Reach File Coordinator
U.S. EPA (WH-553)
401 M Street SW
Washington, D.C. 20460
(202)382-7030
after August 24, 1991
(202)260-7030

United States
Environmental Protection A[illegible]
Office of Water

EPA RIVER REACH FILE

VERSION 3



National Conference on Integrated Water Information Management

ATTACHMENT 9

The River Reach File Mission Statement

What is the River Reach File?

The River Reach File Version 3, also known as RF3, is a database of rivers, streams, lakes, reservoirs, and shoreline traces developed by EPA's Office of Water that resides on an IBM ES 9000 mainframe located at the National Computer Center (NCC) in Research Triangle Park (RTP), North Carolina. RF3 provides hydrologic continuity, a spatial foundation for analysis, and a graphical interface for access to many of EPA's water management information systems.

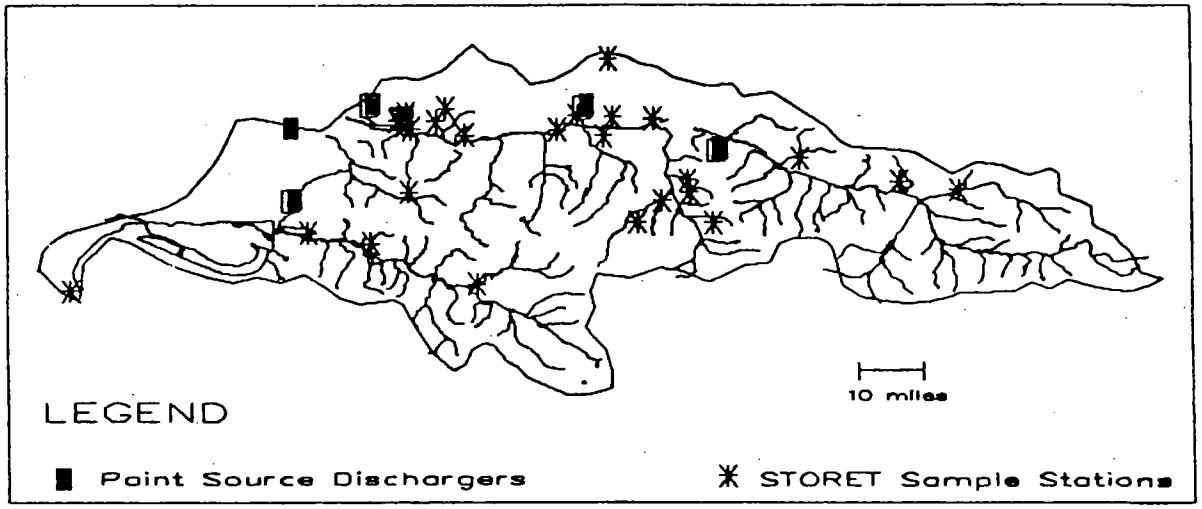
National Hydrological Database

The geographic traces were taken directly from the U.S. Geological Survey Digital Line Graph (DLG) data and encompass 54,000 7.5 minute quadrangle maps. RF3 has separated these traces into segments called reaches (a segment of a stream from one connecting stream to another as small as 1/10 of a mile) covering nearly 80% of the mapped surface waters in the continental United States. EPA expects to include the remaining 20% into RF3 by mid 1992.

Analytical Capabilities

RF3 is a geographic locator system that displays water quality stations, discharge points, USGS gaging stations or other locations, in addition to city names, roads, and county boundaries and does spatial analysis within 100 feet of accuracy.

Elements within the database perform hydrologic routing for modeling programs that provide upstream and downstream relationships of surface waters.



EXAMPLE: Drainage Basin With Streams and Sample Station Locations

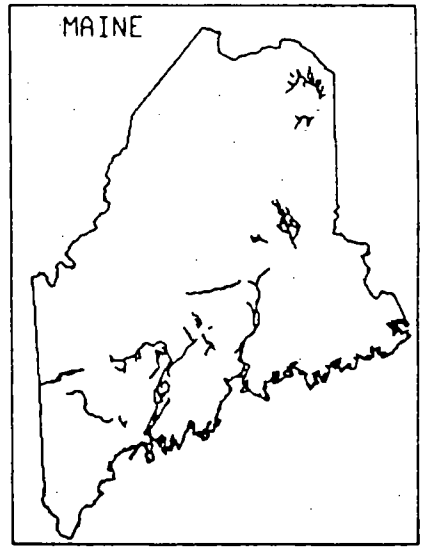
The River Reach File Can Meet EPA Program Needs

With RF3, users can create computer graphic displays which indicate environmental information for segments of waterbodies answering questions such as "which waterbodies meet state designated uses?"

EPA Programs which currently have RF3 interfaces and those proposed for future interfaces are:

- Clean Lakes Program
- State Designated Use Assessment of Waterbodies
- Nonpoint Source Management Program
- Stormwater NPDES Permitting Program
- Pesticides and Contaminated Sediments Program
- Support to the ArcInfo Community to provide links to the GIS system

STORET water quality monitoring stations are linked directly to the River Reach File. Many other EPA and specific state and local programs, will find RF3 and its support systems invaluable in water quality analysis and management pr



EXAMPLE: RF3 Assessment for Maine: Illustrating streams adversely affected by Point Source Discharges.

Report of Stock I.D. Committee
Klamath River Task Force
November 6-7, 1991

I. Committee met Eureka 10/1/91 for the day and had a 2 hr. conference call 10/29/91.

II. Initial Meeting

We reviewed our assignment which was:

1. Review the anadromous fish stocks identified in Chapter 4.
2. Evaluate the rationale for identifying these as discrete stocks.
3. Review and update information on Klamath stocks, identify information needs.

Discussed definition of "stock". Are many definitions - based on what goals are. Did not arrive as a consensus. To help we had presentation by Robin Waples, NMFS, on his work with endangered species related to Columbia River anadromous fish.

Waples showed slides depicting development of definition of "evolutionary significant unit" in Endangered Species Act petition evaluation. Two criteria used to help judge whether a particular population is an ESU.

1. Reproductively isolated - not absolute
   Degree of isolation - amount of straying, barriers
2. Must be important component in the evolutionary legacy of the species. Is it genetically distinct; unique adaptation to its environment.

Several stocks might make up an ESU.

Committee also asked Pat Higgens, who put together Chapter 4 of Long Range Management Plan to go over the list of tentative stock groups listed and the rationale used to list.

Committee discussed what information would be useful in judging whether populations or groups of fish are similar or different. Some of these are: genetic information, introduced populations into basin and within basin, amount of straying, timing of adult returns and spawning time and location, smolt migration age, timing, and size, unique habitat associated with group of fish.

Did not know how much of this was available to the Committee. Made assignments to various members. Such as -

1. List of hatchery egg/fish transfers or releases into Klamath Basin from other areas.

2. List of outplantings from hatcheries within the basin.
3. CWT recoveries from various areas in basin - how many and how often the occurrence in a particular area.
4. Straying between Klamath & Rogue - emphasis steelhead.
5. GSI assessments within the Klamath basin, how and where samples collected, analysis details.
6. Unique habitats in basin; major habitat changes which would affect population distribution.

Other assignments:

1. Do more thinking about stock definition acceptable to our purposes.
2. Critically read Chapter 4 of LRMP

Set up conference call for October 29 to report on assignments and to discuss stock definition.

III. Conference Call October 29, 1991

Results of conference call:

Brief reports on assignments - not all available information summarized to-date. Information will be typed and circulated to Committee prior to next meeting.

Possible stock definition:

> (Priority) Stock: A population which is reproductively separated to a substantial degree (geographically, lack of straying, lack of stock transfers, unique phenotypic characteristics) and as a stock has good potential to contribute to the restoration of Klamath River basin anadromous fish populations.

Will think about this some more and decide next meeting. Consensus seemed to be we will probably go through a list or make a list of spawning populations for basin - then examine the list using criteria to decide which can be combined as a stock.

1. With Task Force's approval, Committee would like to address only salmon and steelhead stocks.

2. Committee members: Participants 1st two meetings Paul Hubbell, CDFG; Mike Maahs, salmon troll industry; David Wills, USFW; Mike Orcutt, Hoopa Indians; Dan McIsaac and Barry McPherson, ODFW; Jerry Barnes, AFS; Robin Waples, NMFS; myself and Doug Alcorn, USFW.

With Task Force approval would like to make following changes or additions:

> Jack West, USFS to replace Greg DesLaurier
> Graham Gall, UCD and Eric Loudenslager, HSU to replace Robin Waples
> David Hankin, HSU
> John Emlin, USFW - ?? replace Reisenbichler.

3. T.F. time frame for final report from committee?

Attachment 11

Minutes of the Meeting of the
Klamath River Basin Fisheries Task Force
Planning Session, November 6, 1991
Brookings, Oregon

Evening Planning Session (November 6).

(Shake): In this meeting, we are to outline a process that will give us an action plan.

(Dave Mackett lead discussion).

(Mackett): The problems facing the Task Force are "What needs to be done?", and "How do we solicit proposal?" Implementing this plan would involve many "careers" worth of effort. Micro-management is an apparent problem that this Task Force has. Management should be delegated to committees to set the stage, sort out the objectives from tasks, specs., etc. and look at the structure of those objectives. This would be management of the restoration program, not each specific project. In your plan, five major goals are identified, but only one is fleshed out.

$40 million is not enough money to complete this Restoration Program. Since funding is the main problem, the Task Force should be trying to get more money. You guys could make more progress if you try to get more money, rather than trying to assess whether a contractor is doing his job.

You have a telescoping series of what should be done, and how to do these things, in finer and finer detail. Is this really the right way to do this? An implementation schedule is missing. The relationship of each policy with another is also missing. You should discuss whether or not it is feasible to manage the Restoration Program by subbasin.

Comments by Task Force members:

- o We've got some things identified that need to be done, but there's nothing prioritized.
- o There might be some totally different processes to accomplish this restoration program. We must leverage this money and provide leadership to the interested people to provide innovative approaches.
- o The long range plan and the restoration program, given its limited funding, could be best used as a cookbook for fishery restoration in the basin. Our model watershed concept does this.
- o We should present the high priority action items in the RFP and let innovative people tell us how to accomplish them.
- o People will lose interest if not allowed to get involved.
- o We want to prioritize the policies in each chapter, then seek proposals from the public. If we present these in priority order, this might be workable.
- o Empowering people is valuable, but I don't see how we can work outside of the structure of our long range plan.
- o We need to provide the technical expertise for restoration.

- o The Shasta Valley CRMP needs direction. They don't know where to start first. If this group can produce a solution, then the CRMP may be able to use it.
- o An acronym for this program would be useful for folks to identify with it and get involved.

Q: Should we put a group together to go through the plan to identify the areas that are the highest priority, then try to sort it out into categories?

(Mackett): Yes, many objectives, activities, tasks, and criteria are jumbled together as policies. We could ask the management issue types of questions in the planning effort. My personal view is that this long range plan can speak for itself of how things need to be done, but someone must apply this to each subbasin.

(West): I don't think the objectives in the long range plan are obtainable in 20 or 50 years. The public should know that these are ultimate, not immediate goals. I don't think these things are obtainable even with 10 times the dollars. We figured that the total watershed restoration task on the Klamath National Forest would require $170 million. The point I'm trying to make is that it's important to let the public know that the Task Force is setting obtainable objectives, but maybe over a long period of time. If some of the things are not possible, then they should be taken out and set aside, and not put into the prioritization process. The public should also be informed that there are things that we can control and things that we can't.

Additional Task Force comments:

- o Historic surveys and writings indicate that the basin's fish populations were dwindling. The problem is not new. We have to be honest with ourselves and with our constituency to give them reasonable expectations. The poor runs are attributable to many things, we must convey the real message.
- o Loss of stocks within the basin is a real problem, and the rate of loss is increasing. Our management options may be taken away from us if some stocks are listed as Threatened or Endangered Species.

Q: Do we have the knowledge and capability to set the priorities?

(Mackett): Yes, but I'm not sure it's the right thing to do. The system that you're talking about includes escapement, habitat, stock survival, etc. There are habitat requirements of each species, and these are probably different in each subbasin. You can probably put priorities on tasks, but if there is something missing, you should try to get that information. I'm hearing many issues that have not been resolved, i.e. empowering the public, how we measure progress. It could be that the progress capable by this group is simply to stop destruction of the basin. When all these issues are discussed and known then you should proceed. To answer your question, yes we can do it, but I don't think it will do much good.

(Shake): We've never had a chance to sit down and really look at our long range plan to see what it is that we have and what it is that we want to do.

(Mackett): It's a tremendously complex plan, and I can guarantee that no one person can comprehend all complexities at once. I think you should set up

some realistic objectives, and management of those objectives is your job. You should manage the restoration process. What are your management goals? How are you going to manage this program? Some of you must decide where you will get the biggest bang for your buck.

(McInnis): Dave, do you have suggestions to accomplish this planning task that you identify. Can we sit down and decide what our priorities should be? What's the first step?

(Mackett): Tonight, 2 to 4 of us need to get together and meld technical issues and structure objectives. We may want to structure issues, i.e. managing short term objectives. You want a system that says these are the things that need to be done in a subbasin. You must say "Here is the time sequence of how they should be accomplished", and "Here is how we'll evaluate whether we're accomplishing our goal."

(Sumner): I have a problem with hearing that these things are insurmountable. We need to start some positive things here. I don't feel that this group has confidence to get the job done, but let's focus it and do it.

(Holder): I hear a reasonable approach, to sort through and pick out the key objectives. We should try it right away, before developing strategies.

(Mackett): I propose that 4 people get together with me. We will try and come up with a process for the 14 member Task Force to address. We will set up a schedule with an ultimate action plan that will have time schedules of what this Task Force needs to do. We will set up processes of how you handle your proposals. We will also consider how to evaluate and measure progress.

** Motion ** (Odemar): I move that we take this proposal as a motion.

(Shake): No objection, motion carries.

Keith Wilkinson, Mel Odemar, Nat Bingham, Barbara Holder, Dick Sumner, Mike Orcutt, Jack West and Ron Iverson will attend.

Committee meeting to be held in Redding, November 20, 1991.

ATTACHMENT 12

A PROPOSED STRATEGY TO RECOVER ENDEMIC SPRING-RUN CHINOOK SALMON POPULATIONS AND THEIR HABITATS IN THE KLAMATH RIVER BASIN[1]

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Reference of the above individuals participation in the review of this strategy is not intended to imply that they agree with or support all proposed actions.

INTRODUCTION

Spring-run chinook salmon (Oncorhynchus tshawytscha) were once abundant in the Klamath River system as well as other northern California river systems. Habitat loss and degradation, fish harvest, and other natural and human influenced factors have contributed to dramatic declines in the number of adult spring-run chinook remaining in those systems today. The Klamath River spring-run chinook was designated a sensitive species by the USDA -Forest Service (fall, 1990) due to significant declines in adult escapement. Nehlsen, et al (1991) places this stock in the category "at high risk of extinction". Risk of stock extinction is very high within the next several decades and will accelerate with each succeeding generation assuming present average survival and exploitation rates remain unchanged (Figure 1). If survival rates are increased and/or exploitation rates are decreased, potential of this stock surviving will increase. **Present adult population levels place this stock group at high risk of irretrievable genetic loss from randomly occurring natural or man induced events.**

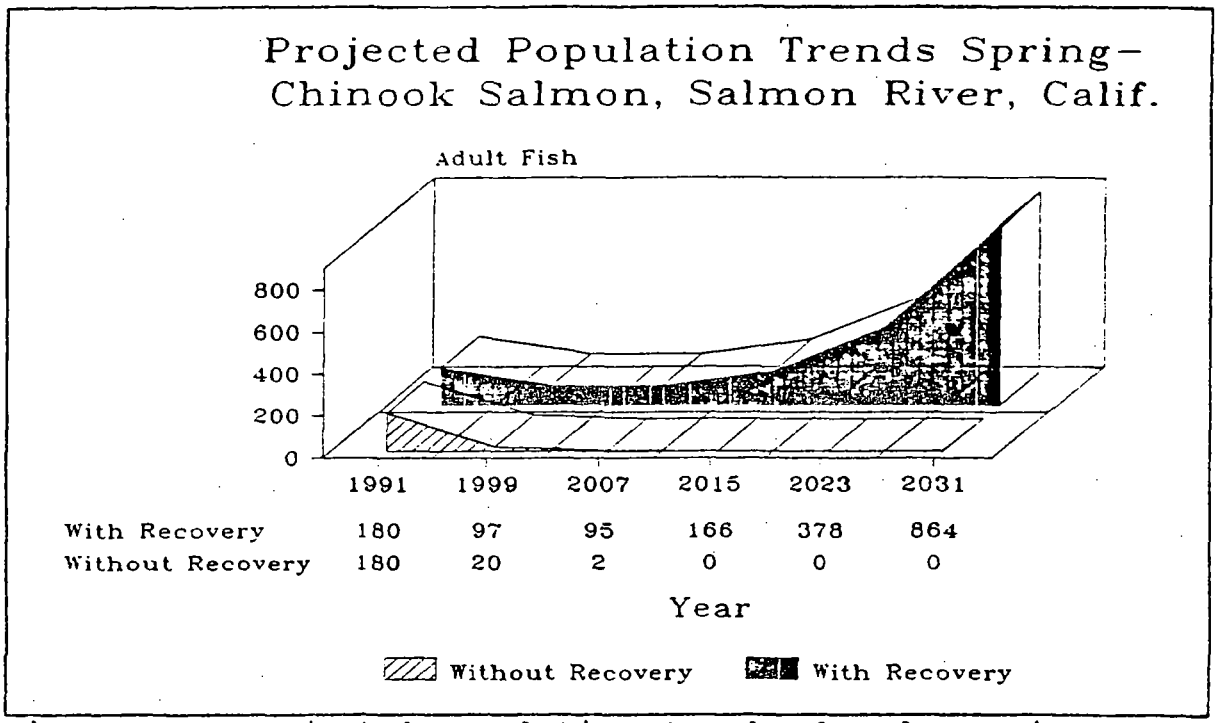

Figure 1. Projected population trend of Salmon River (CA) spring-run chinook salmon based on present average lifestage survival rates. Projections shown represent population trends with and without implementation of recovery strategy.

The Salmon River, tributary to the Klamath (Figure 2), provides habitat for the largest wild run of spring chinook in the entire Klamath River system. This run is possibly the largest remaining wild spring chinook run left in California (Campbell and Moyle, unpublished).

The purpose of the following strategy is to explore options available to reduce the risk of stock extirpation thus allowing this stock to recover to a stable population level. The following strategy is formulated based on the best information available (planning level information) and will be modified based on more detailed project level information as it becomes available. Some factors which influence population levels of spring-run chinook salmon are within the authority of the Forest Service to affect (eg: freshwater habitat condition), and other factors are beyond Forest Service authority (fish harvest, water withdrawal, ocean conditions, etc.). This strategy focuses on those elements which can be influenced by the Forest Service, while at the same time recognizing that many critical factors are beyond the Forest Service's scope of authority.

A key ingredient to the degree of success ultimately realized by this effort is the recognition that adequate protection of existing high quality salmon habitat is an essential and first priority.

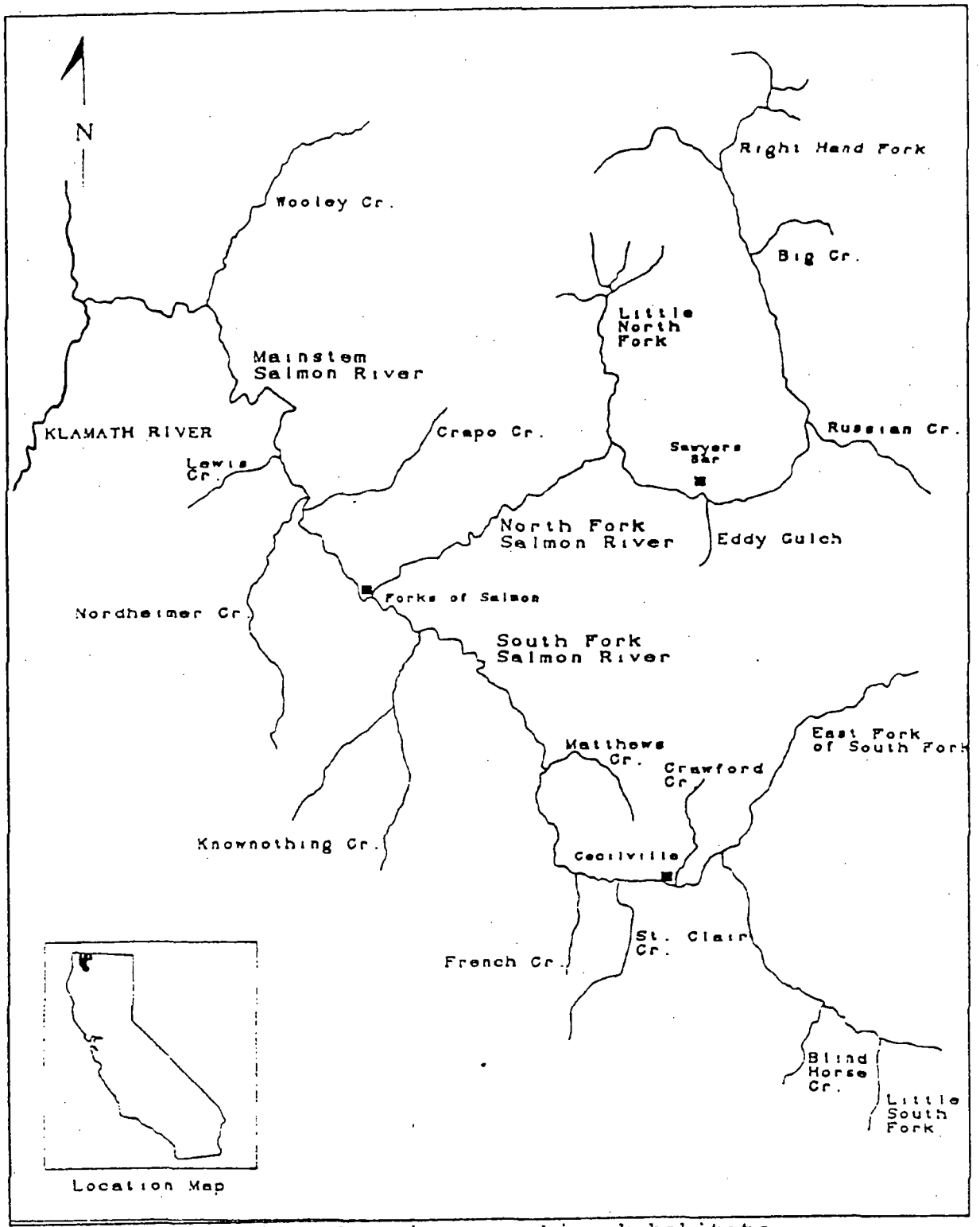

Figure 2. Location of spring-run chinook habitats, Salmon River and tributaries.

EXISTING CONDITIONS

Population status and lifestage survival

Escapement of Salmon River spring-run chinook to summer holding areas has fluctuated from an estimated 1200 to fewer than 200 adult fish during the period 1980 - 1991. "Holding escapement" (those adult fish which survive to return and hold over in river habitat the summer immediately prior to spawning) has fallen near or below the critical level of 200 adult fish for the past 3 consecutive years (1989, 1990, and 1991), indicating that stock viability may be jeopardized. The NMFS (1987) estimated that at least 200 adult Sacramento River winter chinook salmon were needed to avoid irretrievable genetic loss. Though little definitive information is available on stock viability, evidence is clear that effective populations of more than 500 fish may be necessary to reduce a stock's vulnerability to environmental stochasticity (Nehlsen, et al. 1991). An effective population size of at least 50 reproducing adult fish is the minimum necessary to avoid genetic problems associated with inbreeding (Nelson and Soule, 1987).

Estimated holding escapement of Salmon River spring-run chinook has fallen below 500 adult fish in six of the past twelve years (Figure 3). Holding adult escapement into Wooley Creek, a Salmon River tributary, is also at a very low level (Figure 4).

Ranges of survival from one lifestage to another (Figure 5) are based on literature reports as cited in the following discussion, or on more specific information from recent studies of spring-run chinook in the Salmon River (DesLaurier and Olson, personnal communication). Ranges of survival in the natural habitat are extremely variable for a variety of reasons, so applying an average survival rate herein is for discussion purposes only and should be considered hypothetically. Lack of definitive, stock specific information is a serious deficiency, however declining adult population trends will not reverse unless immediate prudent action is taken. During the next decade, it is imperative that stock specific information be gathered and incorporated into future actions designed to reverse declining trends. **Waiting another 5-10 years until stock specific information may be available would increase the probability that this population would have fallen below the critical 50 fish effective population level.**

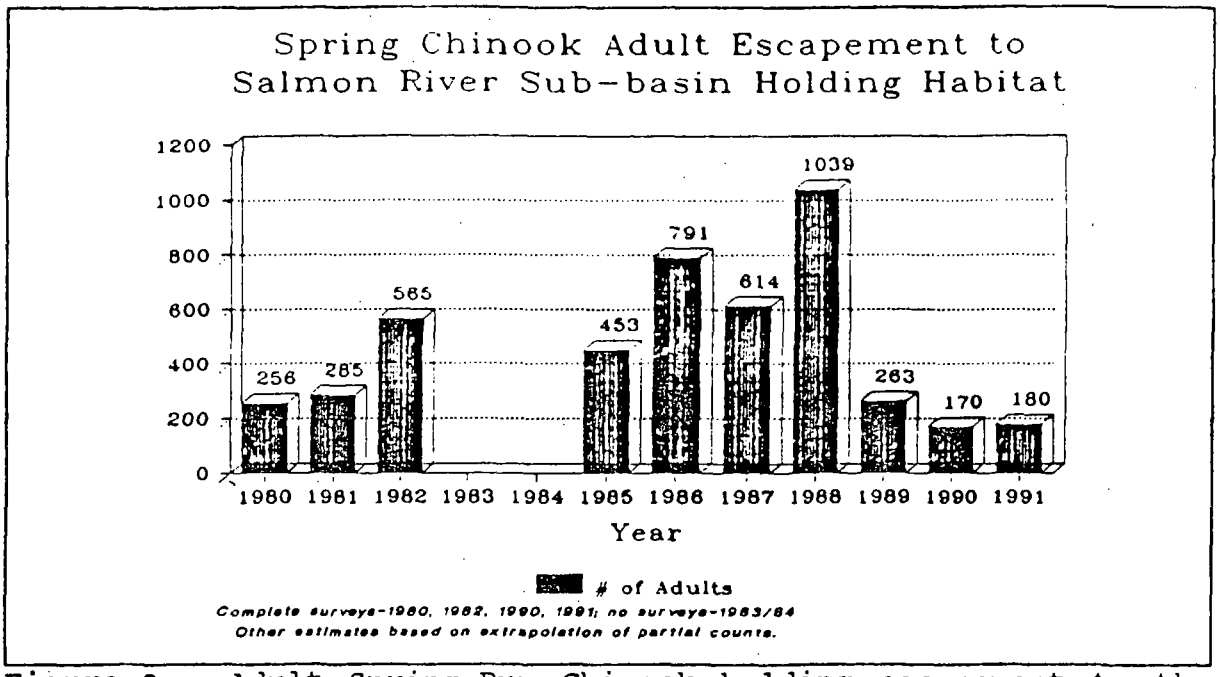

Figure 3. Adult Spring-Run Chinook holding escapement to the North Fork, South Fork, and Mainstem Salmon River,Ca. 1980 - 1991.

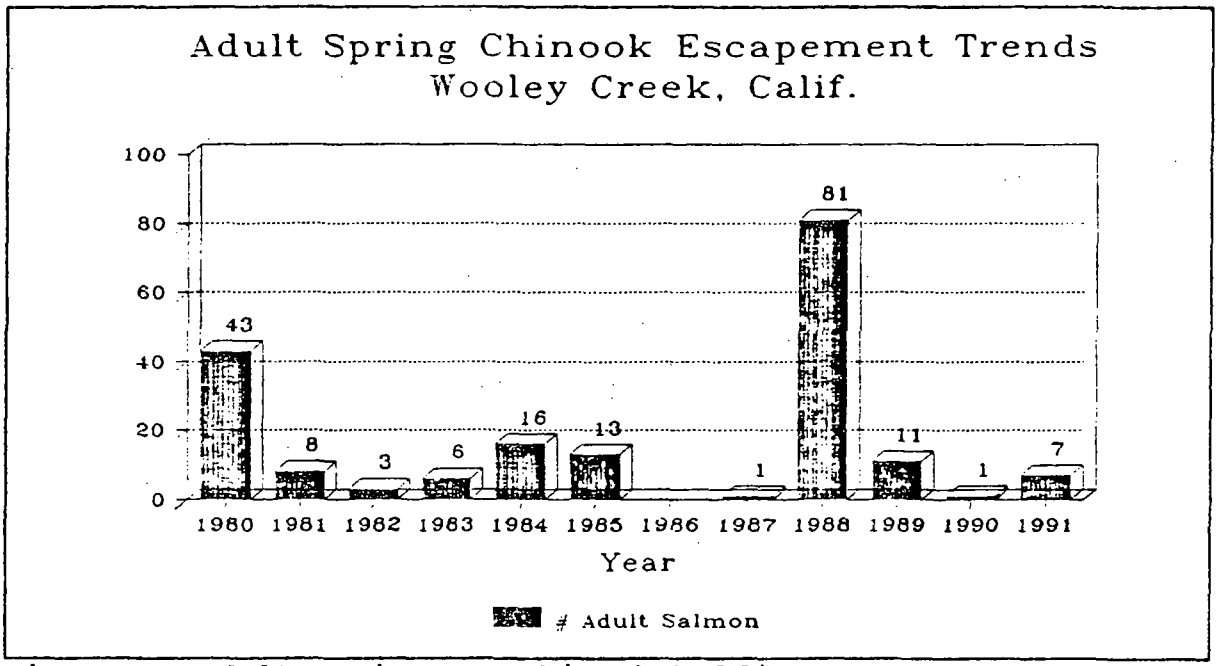

Figure 4. Adult Spring-run Chinook holding escapement to Wooley Creek, CA. 1980 - 1991.

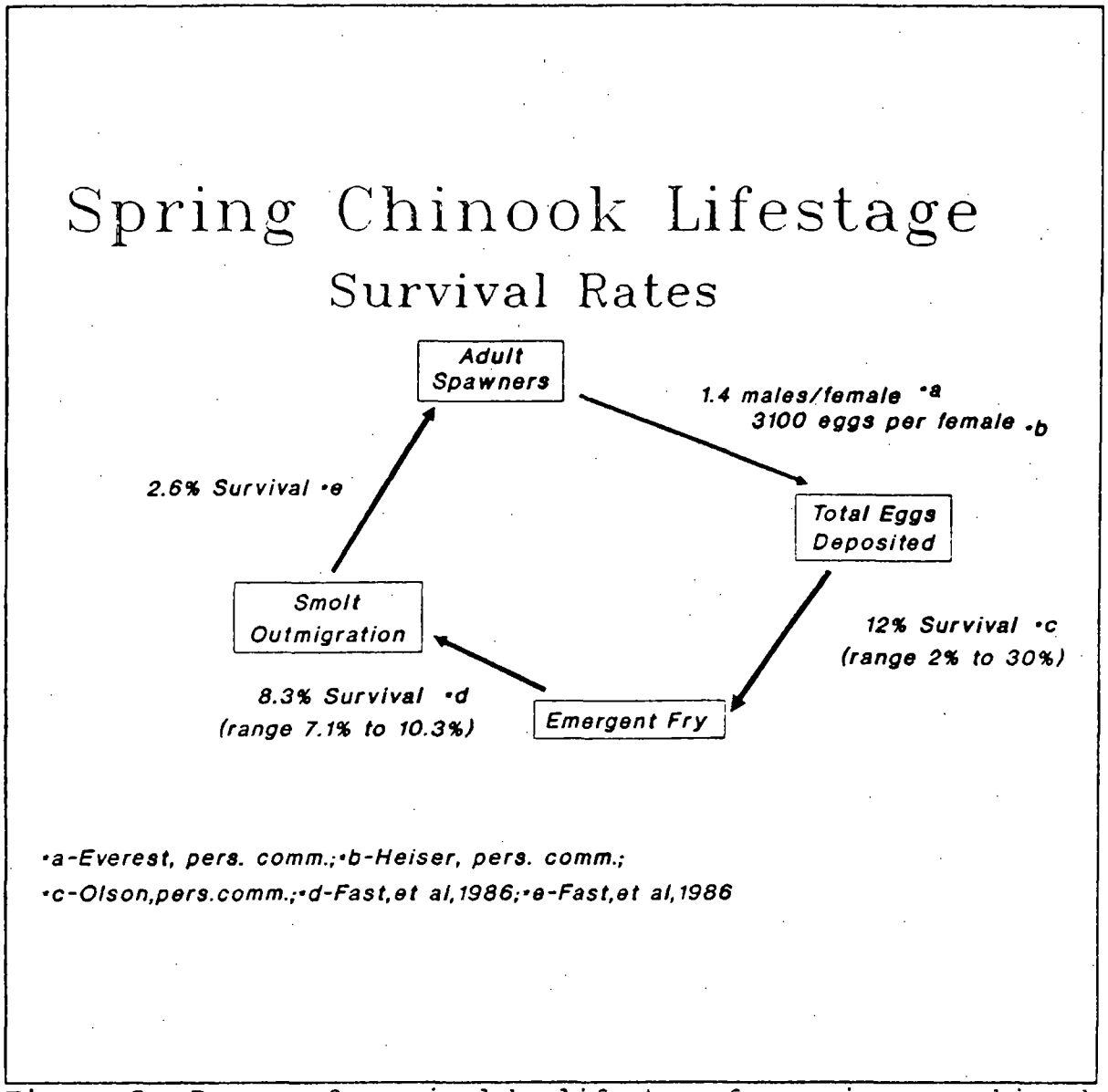

Figure 5. Ranges of survival by lifestage for spring-run chinook salmon in the Klamath River basin, based on site specific and research information.

Survival rates from "holding escapement" to successful spawning probably vary from year-to-year depending on flow conditions in holding and spawning areas and vulnerability of adult fish to poaching and predation. Radio telemetric tracking of adult spring-run chinook in summer 1990 indicated that survival from mid-summer tagging to spawning was about 75% (DesLaurier, personal communication; Figure 3). The effect tagging had on survival is unknown, but carcass examinations indicated that approximately 80% of the mortalities were a consequence of natural predation. The remaining 20% were suspect as being caused

by illegal poaching. Fish behavior observations suggest that fish carrying implanted transmitters were not adversely affected and mortality rates were not significantly different from untagged adults.

There is little specific information regarding fecundity of spring-run chinook endemic to the Salmon River. Klamath River fall chinook spawned at Iron Gate Hatchery average approximately 3,100 eggs per female (Heiser, personnal communication). There is no information available on fertility of wild native spring-chinook stocks. Assuming all fish counted in 1991 survived to spawn and the sex ratio was 58% males and 42% females (Everest, personnal communication) approximately 233,000 eggs would be spawned in fall 1991.

Spring-run chinook spawning begins in mid-September and is completed by late October in the Salmon River. West, et al. (1990) found that spring-run chinook in the North and South Fork Salmon River selected low gradient riffles for spawning.

Water temperature can significantly affect fertilization and egg incubation success. Egg incubation is lengthy as a result of cold winter water temperatures typically found in Salmon River habitats. First emergence is not observed until March (Olson, personnal communication) and extends until early June. Fast et al. (1986) found similar emergence patterns for September-spawning Yakima River spring chinook, where emergence was first observed in early April and continued until the end of May. Conversely, Leidy and Leidy (1984) felt that emergence began in December and continued through February for spring chinook in the Klamath system.

Salmon egg-to-fry survival is variable depending on localized habitat conditions, discharge fluctuations, water temperatures, and other factors. Olson (personnal communication) found Salmon River spring chinook survival to emergence ranged from 2% to about 30%, averaging 12% during the 1990 brood year. Other research on salmon survival to emergence indicates that there is extreme variability, even within a single system. Koski and Phillips (as cited by Chapman, 1966) found coho survival to emergence averaged about 23% in Oregon streams. Bjornn (1978) found that chinook egg to migrant survival ranged from 15% to 52% in the upper Lemhi River, Idaho. Six Yakima River spring chinook redds had egg-to-fry survival rates ranging from 29% to 85% (Fast et al., 1986). Assuming egg-to-fry survival for the 1991 brood year averaged 12%, approximately 27,900 fry would emerge in 1992.

There is a considerable difference of opinion regarding length of freshwater rearing period for spring chinook. Leidy and Leidy (1984) believe that smolt outmigration was the same for the entire Klamath system and occurred between February and mid-June. Sullivan (1989) believes that Klamath River chinook

demonstrate three distinct juvenile life history patterns:

-Type I fish begin smolt outmigration immediately after emergence, entering the estuary in spring;

-Type II lifehistory is represented by juvenile salmon who reside in freshwater from emergence until the following fall;

-Type III fish spend an entire year in freshwater habitat, entering saltwater in the spring following emergence.

Sullivan (1989) also found Type II and III fish were most common to Salmon and Scott Rivers, possibly indicating the presence of spring-run chinook in either or both of those systems. Spring-run chinook were reportedly present in Scott River until at least the early 1960's (Farrington, personnal communication), however Snyder (1931) reported that spring-run chinook were present only in upper Klamath tributaries (Oregon), Shasta River, and Salmon River until at least 1850. Recent investigations (West, et al. 1990; Olson, personnal communication; Olson and West, 1990) have found juvenile chinook salmon in Klamath tributaries (Salmon River, Elk Creek, and Scott River) as late as November. Reimers (1973) found that freshwater residence time played an important role in survival to adulthood of some Oregon coastal chinook salmon stocks. Juvenile spring-run chinook have been observed in the Salmon River system as late as January (Olson, personnal communication) , confirming Sullivan's findings (1989) which indicate the presence of Type III fish in the system. Where similar life history patterns are exhibited, Fast et al. (1986) found Yakima River spring chinook fry to smolt survival ranged from 7.1% to 10.3% (average 8.3% in the period 1981-1983). If survival from fry to smolt averaged 8.3% for the Salmon River 1991 brood year, about 2300 fish would survive to smolt.

Records from Trinity River hatchery at Lewiston indicate that two-year old hatchery spring-run chinook survive at rates from less than one percent to more than 30% in a single decade. Highest survival occurred from brood years 1983 and 1984 (Tuss et al., 1990) which returned to the Trinity River in 1986, 1987, and 1988. Reasons for variability of survival rates of spring-run chinook from smolt to holding adult are not clearly understood. Average survival from tagged hatchery smolt to two-year-old return was estimated at about 2% in the same study. Historic ocean harvest rates have been reduced since 1984 for fall chinook, however the effect of those rate changes on spring chinook escapement to the Salmon River is unknown.

Yakima River 1983 brood year spring chinook returned as three and four year-old adult spawners at a rate of 2.6% (Fast, et al. 1986). Interestingly, that is the same brood year that survived

at a very high rate to age two in the Trinity River system. Applying above cited ocean survival rates to the 1991 brood year, approximately 60 adults would survive to return to the holding habitat. Roughly 45 of those adult fish would survive the summer months in the holding habitat to spawn in the fall of 1995.

Survival rates for each lifestage are variable from year to year, influenced by a number of climatic and human affected factors. In 1987, 614 adult spring-run chinook were censused in the Salmon River holding habitat. Applying the average lifestage survival rates cited herein (Figure 5), 460 of those fish would have spawned, producing an estimated 154 adult fish to the holding habitat in 1991. Comparing the 1991 census results (180 adult fish) with the calculated estimate of fish which should have returned (154 fish), indicates that the lifestage survival rate estimation was conservative for that brood year. Comparison of other estimated and actual survival rates in the past decade indicate that there is considerable variability in actual survival in any year.

Available Habitat Suitability

Spring-run chinook habitat in the Salmon River is presently distributed between Wooley Creek, North Fork Salmon River, South Fork Salmon River, East Fork of South Fork Salmon River, and mainstem Salmon River. Approximately 177 km (106 miles) of habitat is typically accessible to spring-run chinook in this system.

Compared to Wooley Creek, North Fork, East Fork of South Fork, and mainstem Salmon River, the South Fork Salmon consistently holds the majority of the basins' spring-run chinook spawning population. The high frequency of primary pools and relatively low level of human disturbance are in part responsible for this distribution. Wooley Creek, designated wilderness, provides habitat conditions largely unaffected by human influence.

Sedell, et al.(1988, unpublished) defined six habitat elements critical to optimum survival of anadromous salmonids in third to fifth order Columbia River basin streams, east and west of the Cascade mountain range. Those elements are:

* Summer water temperature not to exceed 16° C;
* Fine sediments not to exceed 15% in spawning areas;
* Substrate embeddedness not to exceed 25% in riffles;
* Primary pools (over 1 meter deep) occurring at a rate that exceeds one per six channel widths;
* Riparian canopy composed of deciduous and coniferous vegetation, with a minimum basal area of 250 ft^2 per acre;
* In-channel key pieces of large woody debris present at a frequency equivalent to one piece per 15 lineal meters of channel.

Even though these elements require local modification for every basin in which they are applied, they represent conservative habitat conditions necessary for survival and production of salmon and steelhead anywhere on the Pacific coast (Sedell, personnal communication).

Spring-run chinook adult holding areas are characterized by low velocity pool or run habitats greater than one meter deep with cool summer water temperatures, substantial day-long shade, absence of human disturbance, and available cover near the pool bottom provided by bedrock ledges, boulder accumulations, or submerged large woody debris. Often adult fish can be found in areas where one of these features is absent, however cool water temperature and overhead cover seem to be critical to habitat use. When cool water is not readily available, adult and juvenile fish seek out cool tributaries or spring inflow as refugia.

The North and South Forks Salmon River have about 14939 m^2 of spawning habitat available in traditional spring-run chinook holding and spawning areas (1988 inventories). This amount can accommodate approximately 3248 spring-run chinook redds without superimposition (West, et al. 1990). An additional 5440 m^2 of spawning habitat is available in East Fork of South Fork Salmon River, enough to accommodate 1182 chinook redds (West, et al. 1988). Wooley Creek and other major tributaries to the Salmon River which could potentially support spring-run chinook (Little North Fork, Knownothing Creek, and Nordheimer Creek) have an unknown amount of suitable habitat available. Some streams outside the Salmon River system have suitable spring-run chinook habitat. Surveys indicate that these streams may be used by small numbers of fish or go unused each year (Surveys on file, Klamath National Forest).

Use of available spawning habitat by spring-run chinook spawners does not appear to be directly related to habitat availability. During fall 1988, 80% of the observed spring-run chinook spawning occurred in South Fork Salmon River, where only 35% of the available habitat is located. Conversely, the East Fork of the South Fork Salmon River contains 27% of the available habitat, but received only 8% of the total observed spawn (West et al. 1988, West et al. 1989).

Variability of habitat condition may be responsible for the range in survival of eggs to emergent fry. Habitat in East Fork of South Fork Salmon River produced the highest observed rate of survival-to-emergence (30%) in 1990/1991 water year (Olson, personnal communication). This was probably due to the low volume of fine sediment found in spawning gravels (avg. 6% by volume; West et al. 1988). Survival to emergence was poorest in the South Fork Salmon River (2%; Olson, personnal communication)

where spawning area fine sediment volumes were higher (avg. 14% by volume; West et al. 1989). Survival to emergence information is unavailable for the remainder of the basin habitats.

Fine sediments in the South Fork Salmon River are a result of extensive deposits of weathered granitic rock upriver from Petersburg and in the Trinity Alps Wilderness. Results of an intensive watershed condition inventory conducted in summer 1991 (report in preparation) indicate that the river channel between Petersburg and Big Flat campground contains significant quantities of granite sand "dry ravel" and numerous granitic debris slides which deliver sediment directly into the stream system. Historic damage from mining activities and subsequent major floods continue to contribute significant quantities of fine sediment and sand.

Other factors which potentially affect egg to fry survival (discharge, gravel stability, and water temperature) vary substantially on an annual basis. Spawning gravel stability has been positively affected by instream habitat structure placement in the South Fork Salmon River since 1982 (West, personnal observation). Winter low water temperatures may negatively affect survival in habitats where formation of anchor ice is an annual threat.

Observed use of available rearing habitat (glide habitat types) ranged from 0.84 fish/m^3 in East Fork of South Fork Salmon (West, et al. 1988) to 0.001 fish/m^3 in North Fork Salmon River (West, et al. 1990). Juvenile spring-run chinook rearing appears to be influenced by water velocity, as evidenced by observed high fish densities associated with slow velocity habitat types. Other factors including presence of vegetative or woody cover, thermal refuge, and proximity to sediment-free interstices may play a role in rearing habitat importance (Olson, personnal communication).

Maximum summer water temperatures frequently exceed 20° C in rearing and summer holding habitat, and may result in reduced survival of fry and holding adults, especially under drought-flow conditions. High summer water temperatures have long plagued the Salmon River system and were first documented in 1934 by Taft and Shapovalof (1935). Orientation of the North Fork and South Fork Salmon River channels may aggravate high summer water temperatures. Riparian area damage suffered in the 1955 and 1964 floods was severe and most heavily damaged areas are still in poor vegetative condition (West et al., 1990).

Based on the previous summary of holding, spawning, incubation, and rearing habitat, it appears that none of the available habitat in the Salmon River basin meets the criteria recommended by Sedell, et al (1988, unpublished) for optimum anadromous salmonid production (Table 1).

Table I. Suitability of Spring-run Chinook Habitat in Salmon River (CA) basin.

Available Habitat Condition Suitability Summary; Criteria from Sedell, et al.(1989)

HABITAT ELEMENT	SOUTH FORK SALMON	NORTH FORK SALMON	EAST FORK/SOUTH FORK SALMON
H2O TEMP	NO	NO	NO
% FINES	NO	YES	YES
%EMBED.	YES	YES	YES
POOL FREQ.	NO	NO	NO
RIPARIAN VEGETATION	NO	NO	YES
KEY WOOD PIECES	NO	NO	NO

Yes • Meets Criteria; No • Does not Meet Criteria

Management Policies

Present land management policies on National Forest administered lands provide the opportunity to adequately conserve existing high quality habitats. Pertinent policies include designation of **minimum** riparian management zones and conditions, and do not limit the opportunity of managers to increase the width or activities allowed within those areas. Width and managment activities within specific riparian management and adjacent zones should be prescribed by qualified fisheries and hydrology professionals to result in a net long-term benefit to riparian dependent resources. Avoidance of ground disturbing activities on extremely unstable lands (landslides) and highly erosive soils is a "Best Management Practice" which is implemented on those areas.

DESIRED FUTURE CONDITIONS

Overview

The overall desired future condition is to allow natural processes to recover which will rebuild spring-run chinook stocks of the Salmon River in the next 5 decades. Management activities within the Salmon River basin should emphasize recovery of habitat condition and avoid activities which increase the risk of habitat degradation. The spring-run chinook population will probably continue to decline over the first decade following implementation of this strategy, however that declining trend will be slowed and eventually reverse after about 15 years. A stable viable population (representing the natural age structure) will be attained within twenty years. The strategy for achieving this desired future condition will require carefully setting implementation priorities and making adjustments in the implementation schedule as new information dictates. It is imperative that all portions of the strategy be implementated and closely monitored to ensure eventual long-term success. Positive or negative aberrations in the population level during the recovery period should be carefully studied before any adjustments are made in the implementation schedule.

Twenty Years - 2011

Spring-run chinook salmon adult spawning escapement will recover and stabilize at a population level ensuring viability of the stock group. Short-term strategies to increase the population will prevent further gene pool depletion and reverse the declining trend. Salmon River habitats will be more favorable for maintenance of this naturally spawning population, however conditions will still not be optimal (as described by Sedell, et al. 1988). Other potentially suitable habitats in the Klamath basin will be identified and restored as necessary providing options for rebuilding historic populations and increasing overall fish production for future generations of commercial, subsistence, and sport harvest. Riparian vegetation will be composed of a suitable mix of native deciduous and coniferous trees, but their growth during the period will still not provide adequate thermal regulation, or meet minimum basal area requirements. Channel features necessary for spawning and rearing will be improving through reduction of fine sediment input. Increased instream habitat complexity will be provided by addition of key woody debris features (Figure 6) and adequate frequency of primary pools. Trends of juvenile and adult populations will be monitored annually and habitat recovery trends will be tracked using standardized monitoring procedures. Composition of the stock group will be well understood as a

result of intensive research to differentiate between local populations and life history strategies they utilize. Predictive models will provide resolution necessary to allow harvest of some adults, maintain a strong gene pool, and increase spawning escapement.
Local citizens and involved agencies will cooperate to perform watershed restoration, monitoring, and to ensure that illegal harvest is recognized as socially unacceptable. Much of the restoration strategy will be implemented by local citizens, providing an opportunity for diversifying the local economic base. Results of citizen involvement in the strategy will increase public understanding of and appreciation for endemic salmon and steelhead stocks and their habitats.

Fifty years - 2041

Spring-run chinook salmon adult spawning escapement will stabilize at a population level allowing substantial sport, commercial, and subsistence harvest which significantly contributes to stability of the regional economy. Short-term strategies employed in the first decade of recovery will no longer be necessary to maintain the stable level of natural production, but will be employed in other Pacific Coast watersheds where similar stock groups are at risk. Salmon River habitats will be optimal, meeting or exceeding well understood production criteria. Other suitable habitats in the Klamath basin will be in advanced stages of recovery providing conditions suitable for healthy populations of spring chinook well distributed throughout the Klamath basin. Riparian vegetation will be composed of a suitable mix of native deciduous and coniferous trees providing adequate thermal regulation, meeting density and size requirements. Channel features necessary for spawning and rearing will be resilient enough to withstand natural fluctuations of sediment input and flooding without impairing fish productivity. Complex instream and riparian habitats will be maintained through natural processes and the agency roles will focus on stewardship, education, and public involvement. Habitat and watershed restorations effected in earlier decades (1991-2011) will be replaced by natural processes allowed to operate within the managed landscape. Trends of juvenile and adult populations will continue to be monitored annually and become the focus of community involvement. Salmon River and other Klamath basin habitats will be nationally recognized for their excellent water quality, fisheries, and related recreation opportunities which will generate significant tourism revenue for the local communities.

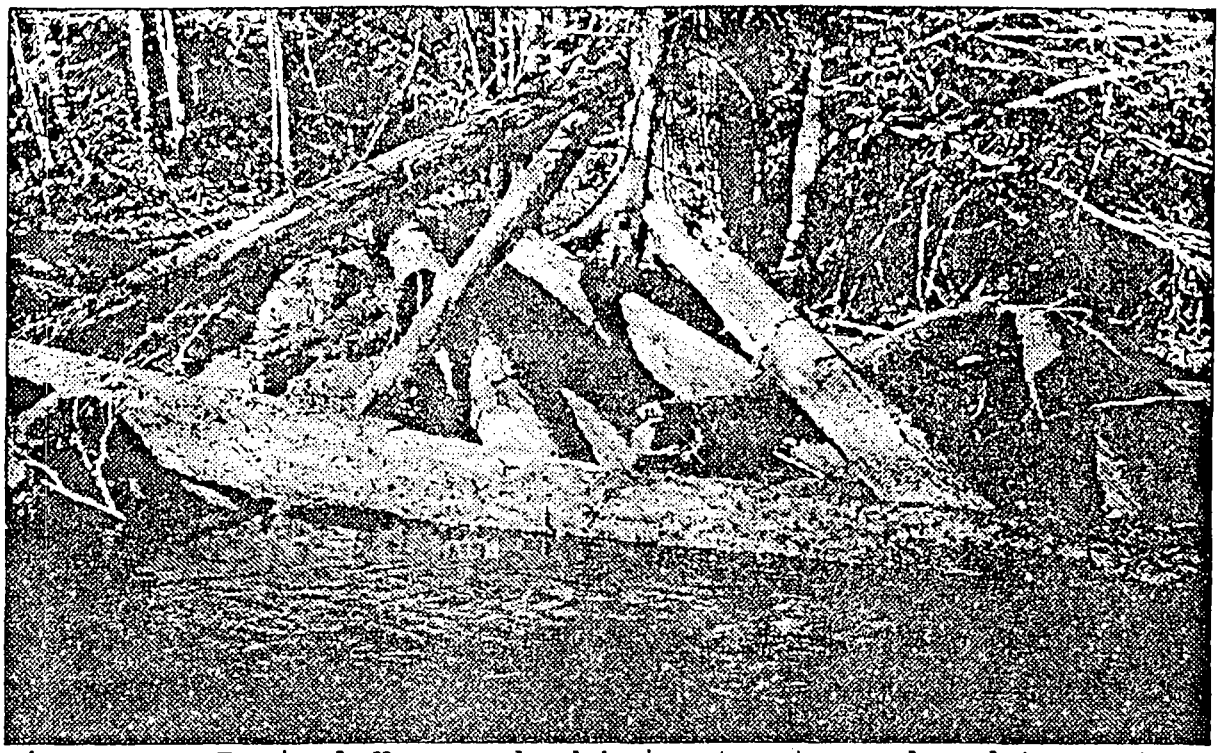

Figure 6. Typical Key woody debris structure placed to restore salmonid adult holding and juvenile rearing habitat complexity (Elk Creek, Calif.)

MANAGEMENT OBJECTIVES

Fish Population and Lifestage Survival

1991-2011: Stock Viability -

- **SV-1** - Adult spawning population will continue to decline until year 15 when it will begin to increase. Population may fall below 100 adult spawners during the period. Increasing escapement after 2003 will be reflected by more than one adult fish returning to spawn from each parent spawner.

- **SV-2** - Average annual egg to fry survival rate will equal 23% by the year 2001.

- **SV-3** - Minimum annual smolt production will exceed 5,000 fish by 2011.

- **SV-4** - Average fry to smolt survival rate will equal or exceed 10% by the year 2001.

- **SV-5** - Average annual smolt-to-adult spawner survival rate will equal or exceed 3% by the year 2001.

- **SV-6** - Genetic composition of stock group within the Salmon River basin will be well understood. All actions will allow natural genetic selection to operate unimpaired.

- **SV-7** - Average fecundity of endemic spring chinook by age class will be understood. Population age structure will return to historic condition, adequately representing age 2, 3, 4, and 5 spawners.

- **SV-8** - Site specific lifestage survival rates, juvenile life history types, frequency of lifehistory type occurrence, and relationship of survivability to adult spawner will be understood.

- **SV-9** - Fish population will be monitored involving public and cooperators in annual accomplishment.

2011-2041:
Stock Productivity

- **SP-1** - Annual spawning population will increase from fewer than 150 fish at the beginning of the period to over 2000 fish after 2041. Substantial numbers of adult fish will be available for harvest annually.

- **SP-2** - Annual average egg to fry survival rate will equal or exceed 30%.

- **SP-3** - Minimum annual smolt production will increase from about 3000 fish in 2001 to an average of 75,000 by the end of the period.

- **SP-4** - Annual average fry to smolt survival rate will equal or exceed 10%.

- **SP-5** - Annual average smolt-to-adult spawner survival rate will equal or exceed 3%.

Available Habitat Suitability

1991-2011: Inventory and Restoration

- **HA-1** - Watershed condition in basins affecting spring-run chinook habitat will be known by 1996. High priority basins will be completed by 1993, to allow action item implementation to begin as soon as feasible.

- **HA-2** - Salmon River basin specific habitat elements and conditions critical to holding adult and juvenile rearing survival will be understood by 1996.

- **HA-3** - Klamath basin-wide spring-run chinook habitat condition will be known by 2001.

- **HA-4** - Manage riparian areas for optimum thermal regulation on all perennial streams and sediment reduction/bank integrity maintenance on all perennial and intermittent streams affecting spring chinook habitat. Professional hydrologist and/or fishery biologists shall prescribe and establish Streamside Management Zones by 1993 and prescribe activities necessary to maintain or accomplish riparian objectives. Riparian area vegetation conditions will be in the process of becoming more suitable through planting endemic species of evergreen and deciduous trees; plantings completed by 1996.

- **HA-5** - Net long-term reduction of sediment input to all 4th order and larger streams will be accomplished

by controlling management activities: landscape management activites will focus on implementation of the recovery strategy and protection of existing spring-run chinook stocks and their habitat; stabilize erosion and sediment input sources as identified. Activities will be designed to result in a long-term net reduction of sediment input to spring chinook habitats (4th order and larger watershed scale). Vegetation management will focus first on recovery of habitat suitability and next on prevention of catastrophic watershed damage from large wildfires.

- **HA-6** - Meet instream habitat complexity objectives by 2001: primary pool and woody debris frequency, cover for adult fish. Habitat structural elements will be regularly evaluated to ensure objectives are being met most efficiently.

- **HA-7** - Long-term habitat and watershed monitoring will provide insight into whether management objectives are or will be met.

2011-2041: Natural Recovery

- **NR-1** - Watershed condition in Klamath basin streams (outside Salmon River basin) previously identified as suitable for spring-run chinook production will be known.

- **NR-2** - Riparian area vegetation conditions will be approaching management objectives by end of period. Streamside Management Zones will maintain or accomplish riparian objectives.

- **NR-3** - Fine sediment input will be reduced to near natural levels within the transport capacity of each basin. The objective of road

management will focus on implementation of the recovery strategy and protection of existing spring-run chinook stocks and their habitat; erosion and sediment input sources will be stabilized.

- NR-4 - In Klamath basin streams previously identified as suitable for spring-run chinook production, instream habitat complexity objectives will be met during the period: primary pool and woody debris frequency, cover for adult fish.

ACTION STRATEGY

The following **action strategy is formulated based on the best information available (planning level information) and will need to be modified based on more detailed project level information as it becomes available.**

A series of Action Options are presented and described in detail. The **numbering of Action Options is not intended to suggest priority** for implementation, **all are** relatively **equal priority** and **all must be implemented if the strategy is to succeed.** Table II displays annual implementation cost, time period for implementation, and total cost of implementation. Detailed descriptions also indicate which of the action options may be subject to change based on development of new information. The strategy will be scheduled in a logical sequence to allow development of site specific prescriptions prior to implementation of a related action option.

ACTION OPTIONS

A1 - Monitor natural and supplemental smolt production annually at five sites: South Fork Salmon River, North Fork Salmon River, East Fork of South Fork Salmon River, Wooley Creek, and mainstem Salmon River. Annual cost would average $50,000 to maintain five traps.

A2 - Conduct freshwater life history study to validate site specific lifestage survival rates, juvenile life history types, frequency of occurrence, and relationship to survival to adult spawner. Research would also identify habitat factors limiting survival of rearing fish to smolt. Inventory Salmon River basin thermal conditions to determine suitability of and

potential affects of tributaries on known suitable habitat. Complete cost for single study occurring over 4 year period would be $240,000.

A3 - Establish natural stock spawning channel to provide increase in short-term stocking level. Wild fish would be trapped in the holding habitat and transported to the spawning channel. A maximum of 30% of the annual holding adult population would be moved to the spawning channel. Fecundity of endemic fish could be determined at this facility. The spawning channel would be constructed to control sediment and high emergence could be expected. The channel could develop a brood stock for future outplanting and reseeding of other historic habitats when production goal for basin is met. Spawning channel cost would be approximately $200,000 for construction and $10,000 for annual operation until a run was established.

A4 - Harvest Rate Management - Eliminate poaching through a combination of public education, social pressure, and concerted community-based enforcement. Elimination of poaching would increase holding adult survival from 75% to 80%. Annual cost unknown at present time but possibly about $5000. Advocate ocean and in-river harvest rates if necessary to meet objectives of the strategy.

A5 - Determine genetic composition of Salmon River basin spring chinook population to establish how many stocks are present. Extend present proposal of Cal Poly-SLO for one year at a cost of $35,000.

A6 - Monitor adult fish returns to holding habitat and spawning grounds. Cost of cooperative holding habitat inventories in the entire Salmon River basin approximately $5000 per year. Annual spawning ground inventories would cost an additional $82,000 per year.

A7 - Complete Watershed condition inventories for all subbasins within Salmon River basin by 1996 which have not been inventoried. Approximately 425,000 acres remain to be inventoried in this basin. To complete this task in 5 years would require that 85000 acres be completed per year at an average cost of $3 per acre. Annual cost of $255,000 for 5 years = total cost of $1,275,000. Watersheds would be prioritized based on past disturbance level and projected opportunities for restoration to reduce sediment production.

A8 - Complete inventory of existing fish habitat condition in Wooley Creek, Clear Creek, Dillon Creek, and third

order Salmon River tributaries. Use standard modified Bisson method of inventory on approximately 85 miles of habitat for a cost of $85,000.

A9 - Plant Riparian vegetation in first through fifth order drainages (1105 miles) within Salmon Basin. Total mileage of 3rd to 5th order streams estimated to be 85 miles, 2nd order total est. = 255 miles, 1st order est. = 765 miles. Estimate 24% deficiency in shade and conifer composition in riparian zones and 70% of the acres are plantable. 25 acres per stream mile x 1105 miles = 27,625 acres x .7 (plantable) = 19,340 acres plantable x .24 (deficient acres) = 4641 acres to plant at an average cost of $270 per acre. Total cost = $1,253,000. Planting schedule would be prioritized based on tributary basins with temperatures exceeding maximum recommended summer temperature.

A10- Road stabilization and erosion control on 20 miles of road per year at a cost of $3350 per mile. Average annual cost = $67,000. Slide stabilization, estimate 1000 landslides within inner gorges of 1st to 3rd order drainages. Average rehab cost per site is est. to be $2000. Rehab. 50 slides per year at annual cost of $100,000.

A11- Provide instream habitat complexity to meet criteria for 85 miles of 3rd to 5th order streams (20 pools per mile). Present condition is equivalent to 17 per mile, therefore need 3 pools/mi. x 85 miles = 255 pools at a cost of $2000 each = $510,000. Place 51 pools per year at an annual cost of $102,000. Criteria is 20 pieces of key wood per thousand linear feet, have 2 pieces per thousand lineal feet. 449,000 lineal feet of 3rd to 5th order channel need treatment. 449 x 18 pieces = 8082 pieces to be placed. Average wood structure contains 6 pieces and costs $1100 to place, therefore: 8082 pieces/6 pcs per structure = 1347 structures x $1100 each = $1,481,700 total. Place 270 structures per year to complete by 1996. Average annual cost = $297,000. Place submerged cover structures in 200 5th to 7th order channel pools for adult holding cover. Cost $1500 per structure x 200 = $300,000 total or average $60,000 per year to complete by 1996.

A12- Develop and implement long-term habitat and watershed condition monitoring strategy. Development cost estimated at $40,000. Annual implementation cost unknown but estimate $80,000.

Table II. Action Options to recover spring-run chinook and their habitat showing annual and total cost between 1992 and 2041.

ACTION OPTION	ANNUAL COST	COST 1992-2001	TOTAL COST 1992-2041
A1-Smolt Monitor	$ 50,000	$ 500,000	$2,500,000
A2-FW Lifehistory	$ 60,000	$ 240,000	$ 240,000
A3-Spn Chan costr	$200,000	$ 200,000	$ 200,000
A3-Spn Chan Oper	$ 10,000	$ 100,000	$ 100,000
A5-Genetic Compos.	$ 35,000	$ 35,000	$ 35,000
A6-Fish Monitor	$ 87,000	$ 870,000	$4,350,000
A7-Watershed Invt.	$255,000	$1,275,000	$1,275,000
A8-Fish Hab. Invt.	$ 85,000	$ 85,000	$ 85,000
A9-Riparian Reveg.	$125,300	$1,253,000	$1,253,000
A10-Erosion Ctrl.	$167,000	$1,670,000	$3,340,000
A11-Instream Rstr.	$459,000	$2,295,000	$2,295,000
A12-Wshd Mntr·Dvl.	$ 40,000	$ 40,000	$ 40,000
A12-Wshd. Monitor	$ 80,000	$ 800,000	$4,000,000
TOTAL PROGRAM	**$1,653,300**	**$9,363,000**	**$19,713,000**

STRATEGY IMPLEMENTATION

Implementation of the proposed recovery strategy will require appropriate scale environmental analysis and documentation of ground disturbing activities and securing necessary levels of funding. Funding sources for implementation include traditional National Forest System mechanisms, cooperative cost sharing opportunities with California Department of Fish and Game and the U.S. Fish and Wildlife Service. Historic budget trends indicate that traditional funding sources and mechanisms may not provide adequate funds for timely implementation. Other non-traditional sources must be identified and aggressively pursued to effectively complete strategy implementation. The Klamath National Forest or Pacific Southwest Region should establish a position to coordinate and manage implementation of the recommended strategy. That position would be responsible for preparing project level funding proposals and ensuring that recommended actions are completed in a timely manner.

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